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The application of attributional training and cognitive therapy to occupational settings.

Proudfoot, Judith

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**THE APPLICATION OF ATTRIBUTIONAL TRAINING AND
COGNITIVE THERAPY TO OCCUPATIONAL SETTINGS**

Thesis submitted in fulfilment of the
requirements for the degree of PhD
in the Faculty of Science
University of London

VOL 1

JUDITH PROUDFOOT

Department of Psychology, Institute of Psychiatry
Department of Organisational Psychology, Birkbeck College
University of London

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ABSTRACT

Attribution theory predicts that individuals who repeatedly attribute their failures to internal, stable and global factors, and their successes to external, temporary and specific causes are vulnerable to problems of poor persistence, impaired performance and depression. Attributional training programmes have been used in educational settings to improve students' persistence and achievement, and in clinical psychology to address a variety of problems including depression, insomnia, panic, and low self-esteem. Yet despite the demonstrated relevance of attributions to job-related well-being and performance, programmes to assist employees to refine their attributions for work events have not yet been utilised.

Furthermore, the most effective method for bringing about attributional change is still open to question. A number of techniques have been used, many relying on persuasion in one form or another. Clinically, cognitive therapy modifies attributional style and produces enduring benefit in depression and in other psychological conditions, it has been postulated that reattribution is the active therapeutic mechanism.

This research describes the development and evaluation of an occupational attributional change programme based on cognitive therapy, which aims to help individuals to identify and then to modify their attributional style. First a model was developed to explain the psychological and behavioural outcomes resulting from work-related attributions, next the attributional intervention was superimposed on to the model. Three randomised field experiments were then conducted. The first evaluated a short occupational attributional change programme developed in the US by Martin Seligman and his research team. On the basis of the results from this study, a new attributional intervention was developed incorporating cognitive therapy strategies and organisational training and development principles. It was evaluated in two large studies, one using a wait-list control group design, the other a comparison programme to control for non-specific factors such as the Hawthorne Effect. Consistent with attribution theory, the interventions targeted groups

likely to be experiencing repeated failure insurance sales agents, and long-term unemployed professional people. In both groups, the training programme achieved significant improvements in psychological well-being and performance (decreased quitting among the insurance agents, and increased job-finding among the unemployed). Future prospects for the approach are discussed. In addition, consideration is given to the attributional culture of the organisation into which the training is transferred. It is argued that effective attributional training may not be enough for enduring changes at work, the corporate attributional style must support the training outcomes. The notion of corporate attributional style is explored and a small study was undertaken in a preliminary attempt to measure it.

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To my Dad

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INTRODUCTION

Attributional change interventions are common in clinical psychology, in education and in social skills training, but have not yet been used in organisational settings. This thesis is about creating attributional change in the workplace. It will describe how, for the first time, attributional retraining strategies are employed in the occupational sphere, to help employees review their attributions for success and failure. It will also explore the impact of the attributional culture of the organisation in facilitating or inhibiting attributional changes made by individual employees.

Two diverse systems of change will be integrated to form the vehicle for workplace attributional modification. The first is used extensively in organisations to effect change at the individual, job and corporate levels. It is organisational training and development. The second, cognitive therapy, has emerged over the last 30 years as an efficient therapeutic intervention for depression and other psychological problems, but it has not yet been applied to the occupational domain. This thesis will describe how cognitive therapy principles are integrated with organisational training and development methods to form a comprehensive attributional training programme for the workplace.

The thesis will commence with an exploration of attribution theory: its rich tradition in social psychology, its use in clinical psychology and its more limited application in occupational psychology. Research pertaining to both attributional antecedents and attributional consequences will be described, along with the types of attributional interventions used to date.

The two systems for achieving attributional change in this research, cognitive therapy and organisational training and development, will be profiled in Chapter 3. The theory and practice of each will be reviewed, and its application to attributional change will be discussed.

The aim of chapter 4 is to weave a theoretical and methodological context for the three experimental studies to follow. First, a model will be developed to explain the psychological and behavioural consequences of work-related attributions. The attributional intervention will be positioned into the paradigm, and hypotheses derived. Research measures will be described, including the development of a new domain-specific attributional style questionnaire, together with the rationale for their use.

Chapter 5 will describe the empirical evaluation of 'Optimism ABC', an attributional change programme for the workplace developed by Martin Seligman and Foresight Inc, but not yet fully tested. The programme utilises cognitive therapy techniques, but does not incorporate organisational training and development principles. It was written for insurance sales agents and was evaluated in an insurance context in the present study.

The development of new attributional training programme follows. Aiming to incorporate organisational goals and individual employee needs, it is based on a combination of organisational training and development principles as well as cognitive therapy techniques. The programme was empirically evaluated in work contexts targeting groups likely to be experiencing repeated failure. Chapter 6 will outline the programme, its development and the first evaluation study with insurance agents (to provide a comparison with the outcomes of the previous study). Chapter 7 will assess the impact of the attributional change programme with another group of subjects likely to be experiencing repeated failure - long-term unemployed professionals.

In chapter 8, the notion of corporate attributional style will be explored. Its impact on employees' attributional style and work performance, as well as on the maintenance and generalisation of improvements brought about by attributional training will be considered. Conceptualisation and measurement issues will be highlighted, and the development and piloting of a new methodology will be described. The thesis will conclude in chapter 9 with a consideration of how the research informs the wider debate, its limitations and possible future directions.

In summary, this research explores the application of attributional training principles to the workplace. To do so, it draws on the disciplines of social, clinical and occupational

psychology Working at the interface of a number of psychological disciplines, of course, can be problematic, but it also offers exciting challenges and potential advantages Taylor (1981) outlines a number of advantages of research conducted at the interface of social and cognitive psychology I would highlight three that are relevant to a clinical-occupational liaison

- First, such research provides an opportunity to test a theory in settings other than those for which it was specifically developed, for example, it allows consideration of the extent to which the existing findings can be generalised to non-clinical settings Whilst Taylor acknowledges that confining research solely to the discipline for which it was developed facilitates precision of inferences, she suggests that it may also miss important and potentially rich information
- Second, it expands the range of dependent variables that are studied, particularly the behavioural consequences of the cognitive variables
- Third, it helps to define the boundaries of the phenomenon under consideration This feature, I would suggest, is especially important in the case of 'attributional style', a key variable in this research, which has been described as a "velcro construct" (Peterson, 1991), reflecting the number of variables, theoretically-derived or not, to which it has been linked

Referring specifically to the current status of organisational psychology, Ilgen & Klein (1989a) maintain that applying the constructs and concepts of one discipline can advance the knowledge base of another in three fundamental ways

- the constructs and concepts from one discipline are shown to be appropriate to the other They term this 'demonstrative research', and claim that, although useful and necessary as a first step, it does not advance the knowledge in either discipline to any great degree However, advances can be made if
- the research in the new area contributes to knowledge about the constructs under investigation regardless of the setting or discipline, or
- the research generates knowledge that can be usefully applied to organisations

These authors allege that the cognitive research derived from social psychology (including attributional research) that has taken place in organisations to date has been almost exclusively demonstrative

“The non-empirical articles focus primarily on translating cognitive terms into the organisational environment, empirical pieces often offer little more than demonstrations that cognitive variables make sense for interpreting particular events that occur in organisational settings” (Ilgen & Klem, 1989a, p346)

They conclude that, if the field is to avoid becoming stagnated at the demonstrative level, greater efforts must be made to conduct research and develop theory that begins to contribute more to the understanding of cognitive processes, to practice, or to both

It is the aim of this research project to cover all three levels of endeavour outlined by Ilgen & Klem

- 1 to show that attributional models and cognitive therapy strategies (from social and clinical psychology) can be applied, with fidelity, to an occupational context
- 2 to extend what is known about attributional processes, and
- 3 to contribute to organisational practice

But there are a number of unique features of occupational psychology that differentiate it from other branches of psychology and which complicate the process called for by Ilgen & Klem

“We must engage with applied issues and with the prejudices and power relationships that underlie them. Much of our research demonstrates the art of compromise between the desire to accumulate knowledge and the pressure to provide some sort of help to industry. Whatever our findings, they are open to misinterpretation. If they are soundly based but do not fit the spirit of the times, they are likely to be ignored” (Guest, 1992a, p6)

The organisational context imposes constraints, such as technical or social factors, which limit the employee’s freedom to act, as well as countervailing forces that prevent change. In addition to the impact of the organisation’s structure, a multitude of individual, supervisory and peer factors affect outcomes in an already complex and fluid environment. Organisations are constantly changing and evolving, which also enhances the difficulty of conducting research. Moreover, constructs in occupational research are often complex, and difficult to operationalise or measure.

This is the minefield in which the current research is set. We start with a consideration of the various attribution theories on which the research is framed. These will be discussed in the next chapter.

ATTRIBUTION THEORY

“Happy is he who has been able to learn the cause of things”

(Virgil, Georgics, Book II)

Attribution theory concerns everyday explanations, how and why people explain events. Until recently, its study was limited to social and clinical psychology. With its relevance to achievement motivation and its rich array of testable research questions, however, it offers a valuable and relatively unexplored framework for organisational research. In particular, it provides the conceptual building blocks for the model outlined in this research, which is designed to investigate an occupational attributional change programme to enhance resilience and performance. The present chapter is devoted to a description of the aspects of attribution theory that underpin this research. It starts with an appraisal of the literature concerning the antecedents of attributional processing. It then proceeds to a consideration of attributional consequences, highlighting two theories of particular relevance to the research project. Next, the relatively recent application of attribution theory to organisations is examined. The final section in the chapter focuses on attributional retraining programmes: existing research is discussed and directions are drawn for the development of an effective attributional intervention. But first, a little background.

2.1 THE PURSUIT OF "WHY"

The study of how people seek and understand the causes of behaviour has a distinguished tradition in psychology, starting with Piaget's (1930) study of the origin of the notion of causality in children and Michotte's (1946) investigation of the perception of causality with geometric shapes. However, the substantive social psychological research in attribution theory originated with the works of Heider (1958), Jones and his colleagues (Jones & Davis, 1965, Jones & Nisbett, 1972), Kelley (1967) and Rotter

(1966) Their insights provided the blueprint for succeeding attributional theories, such as that of Weiner (1986a), Abramson, Seligman & Teasdale (1978) and others, from which this particular research is informed

The central assumption of attribution theory is that human beings are constantly engaged in a search for the causes of internal or environmental events, and that an understanding of such events will permit the person to function more adaptively (Heider, 1958, Kelley, 1967, Weiner, 1985a) The search for understanding is a (or the) basic 'spring of action' (Weiner, 1979) According to Kelley (1967, 1973) humans behave as naive scientists, and failure to reason in a scientific or rational way leads to psychological distress

That people engage in spontaneous causal thinking has been amply demonstrated For example, the Seligman research team found an abundance of causal attributions when they content-analysed diaries, letters, political speeches and press conference reports (Peterson, 1991) The strongest evidence, however, has been provided by Weiner (1985b), who undertook a review of the research literature, covering a number of different methodologies for documenting attributional thinking (such as coding written material, coding verbalisations during task performance and conversations, and indirect inferences of attributional activity in other cognitive processes) All showed a great amount of spontaneous causal activity Indeed it has been documented that people make attributions at the rate of approximately two per minute (Silvester & Stratton, 1991, Silvester, 1994) Anderson (1983a) concludes

"Making attributions for experienced or observed events is a basic cognitive process" (Anderson, 1983a, p185)

Nevertheless, most of the time, people are not consciously seeking explanations or engaging in causal processing So when is it more likely, and why do we do it?

When do people ask 'Why?'

It is generally agreed that, when performing familiar activities, people rely on well-learned scripts which do not require explanation (Laljee & Abelson, 1983) However, when unexpected events occur, or when goals are not attained, causal explanations are sought

Important information or information pertinent to the self is especially prone to attributional processing

"It has been demonstrated that the search for 'why' is more likely given failure (rejection) than success (acceptance) Unexpected events are more likely to lead to 'why' questions than expected events Subjective importance will also influence the pursuit of knowledge" (Weiner, 1979, p4)

Goal non-attainment as a cue for attributional processing has particular relevance for the study of attributions in the occupational domain This theme will be taken up in more detail later in the chapter

Why the pursuit of "WHY"?

Why do we seek causal explanations? Is it just to be able to understand? Certainly, understanding is one function of attributions, but there are other functions too

"The attributor is not simply an attributor, a seeker after knowledge, his latent goal in attaining knowledge is that of effective management of himself and his environment" (Kelley, 1980, p22)

Drawing together the work of all the major attributional theorists, Forsyth (1980) distinguishes four main functions of attributions

- Explanation and Prediction The Control Functions Understanding the causes of behaviour and events allows a degree of control over the physical and social world Forsyth suggests that there are in fact two functions related to this theme, explanation and prediction, which allow cognitive control over past and present events, as well as anticipating future occurrences
- The Egocentric Function People protect their self-esteem by making self-serving biases such as internal attributions for success and external attributions for failure
- The Interpersonal Function By selectively manipulating their descriptions of causality, people can control the perceptions of others, and avoid embarrassment or gain approval, and thereby protect their social identity

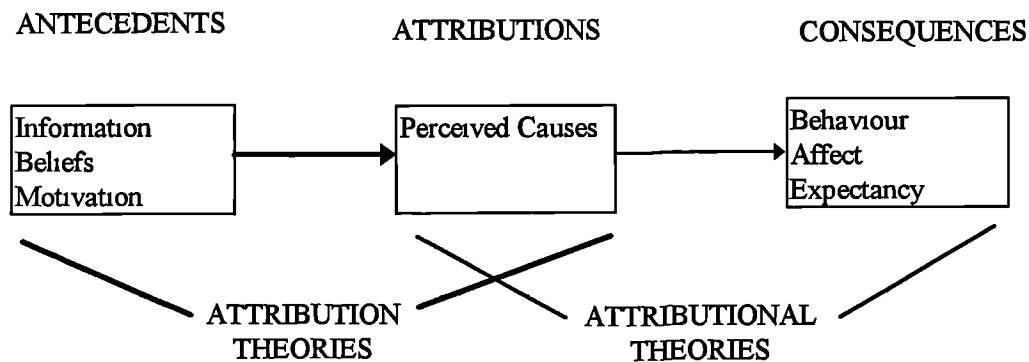
This taxonomy has intuitive appeal, as well as a distinguished research literature to back it However, Forsyth warns that, in general, the functions are not distinct, in most situations, attributions serve multiple functions In sum, people spontaneously seek the causes of events that are important, unexpected or unusual, in order to understand and

manage themselves and their environment. With this as background information, now let us turn to the theory.

2.2 ATTRIBUTION THEORY

Attribution theory is divided into two fields: the study of the antecedent conditions leading to formation of causal attributions, that is, the linkage between stimulus (S) and cognition (C), and the psychological and behavioural consequences of the causal beliefs, the cognition-response (C-R) linkage. The two fields have been confusingly labelled *attribution* (S-C) and *attributional* (C-R) processes (Kelley & Michela, 1980), see Figure 2.1¹

Figure 2.1 *The Attributional Field* (Kelley & Michela, 1980)



Research into the antecedents and consequences of attributions has developed somewhat independently from each other. As Forsterling (1988) notes, most attribution (S-C) studies have investigated how different situational variables have led to different causal cognitions, while ignoring their behavioural or emotional consequences. In contrast, attributional (C-R) studies have analysed the behavioural and emotional consequences of different causal attributions, and have also designed “therapeutic” attributional change programmes, without asking in what situations the respective attributions might occur. An integration of the two branches is clearly needed. This research project draws from

¹ It must be noted that, upon Kelley & Michela’s admission, the model is incomplete, because causal structure is actually circular rather than linear (consequences at any given time partially determine their antecedents at a later time).

both branches of attribution theory, although it must be acknowledged that it is primarily lodged within the attributional (C-R) area, the consequences of attributions. For simplicity, however, the attribution (S-C) and attributional (C-R) processes will be discussed separately in the sections that follow.

A. THE ANTECEDENTS OF ATTRIBUTIONS

Classic models of the attribution (S-C) process viewed people as logical information-processors, gathering information and drawing inferences in an attempt to understand the causes of their own and others behaviour. Any departures from rational decision-making were assumed to result from interference from motivational or emotional factors. Later, however, attribution theories recognised that individuals do not always use rational scientific processes, but make judgements quickly, using minimal information, and employing strategies riddled with distortions and biases. A great deal of research endeavour has been invested in determining 'causal antecedents', the factors that guide the attribution process.

Causal Antecedents

Social psychologists over the past 20 years have identified a number of factors which influence how people make attributions. Kelley & Michela (1980) suggest that they can be considered in three categories: information, beliefs and motivational factors. For a detailed outline of each of the categories, the reader is referred to Kelley & Michela (1980). A brief summary of the most significant causal antecedent factors, compiled from a variety of sources, is presented here.

1. **Situational information** - It is generally accepted that people employ certain informational cues in order to draw inferences about the causation of events. According to Kelley (1967, 1972, 1973), covariation is the foundation of the attribution process. Individuals tend to attribute an event to the factor or factors with which it covaries, and the more often the event covaries with the stimulus, the greater the attributional certainty. Further cues for causality are provided by three types of situational information, which Kelley labelled 'consensus', 'distinctiveness' and 'consistency'. This

information is gained by observing variations in behaviour across persons (i.e. how others have done in the same situation), situations (how the person has done in other areas), and time (how the person has done in the same situation in the past) respectively²

Although studies have shown that when individuals are provided with full consensus, distinctiveness and consistency information they are capable of drawing logical inferences that are consistent with the principles of covariation (e.g. Hesketh, 1984), in practice, we do not regularly follow such detailed and rational models. Instead, simple principles such as temporal and spatial contiguity, primacy and salience are used. The latter has been offered as an explanation for the oft-cited 'fundamental attribution error' (Ross, 1977), the tendency to overemphasise dispositions and underemphasise situational influences as causes of behaviour. Certainly, Kelley acknowledges that there are occasions on which the perceiver lacks the time, information or motivation to examine the information necessary to make the causal decisions, and suggests that in these cases, attributions are made on the basis of a single observation, using existing causal schemata. Here, I would propose, similarities can be drawn with Schank & Abelson's (1977) notion of 'scripts', which they describe as "*stereotyped sequences of actions in particular settings*", such as a restaurant, church etc (p72). Scripts do not require, and in fact they discourage, attributional processing, as the explanation is implicit in the script. This leads to a consideration of the second group of causal antecedents, beliefs.

ii. Beliefs - Causal beliefs can pre-empt or override the analysis of situational information. In these instances, attributions are made without analysing the information inherent in the situation, or if current information is processed, it is biased by the causal beliefs. At the simplest level they may be just suppositions, but at a more complex level, causal schemata may exist which affect not only the attributions made for events, but the intake and use of causally relevant information. Kelley outlines a number of causal schemata. I would add that an individual's 'attributional style' (Abramson et al., 1978), the systematic way in which individuals explain the good and bad events that befall them, is also an example of a causal schema. This construct will be discussed in more detail later in the chapter.

² It is interesting to note that the three attributional dimensions (locus, pervasiveness and stability) later proposed by Abramson et al (1978) map precisely on to Kelley's three sources of covariation information.

iii Biases and Distortions The concern to protect one's self-esteem, social standing, sense of competence or control may interfere with the attributional process, and lead to biases in the formation of causal inferences. A number of attributional biases or errors have been documented. Examples include the self-serving bias (Miller & Ross, 1975), the tendency to take credit for success and attribute failures to situational factors, and the self-handicapping bias (Feather, 1983), the attempt to reduce threats to self-esteem by seeking inhibitory factors that interfere with performance, thus providing an 'excuse' for potential failure (if failure occurs, it is not viewed as a reflection of low ability, but if success occurs, it was against all odds)

Another reason for biases in the attribution process is the difference in perception between self and other. The 'actor-observer perspective' was formalised by Jones & Nisbett (1972), who explained it as a pervasive tendency for actors to attribute their actions to situational requirements, whereas observers tend to attribute the same actions to stable dispositional characteristics of the actor. This bias, Jones & Nisbett suggest, can be explained by cognitive factors (the amount and type of information available to actors and observers is different) or motivational factors (the individual's concern about self evaluation and self presentation). The actor-observer bias has received considerable empirical confirmation, however, evidence suggests that it may not be as pervasive as Jones & Nisbett originally suggested (Weary, 1981). Farr & Anderson (1983), for example, point out that the actor-observer difference in perspective is, to some degree, unique to the visual modality of actor/observer, and is not as profound in other modalities, such as speaker/listener, or writer/reader, where perspectives are shared.

In sum, a variety of influences on the attributional process have been identified, and together they constitute a compelling account of how causal explanations are made. But this research has not been without criticism. In particular, challenges have been made to the Hobbesian assumptions of attribution theory that people are rational, albeit not infallible, information processors, who will make accurate decisions, given sufficient time, unless motivational and social influences cause distortions, errors or biases. Many researchers now believe that human beings do not process information in such an elaborate or accurate manner (e.g. Feather, 1985). Others question whether humans

analyse social cues at all in their day-to-day social interactions Langer (1978), for example, proposes that most of the time, people are not consciously seeking explanations, nor are they actively engaged in monitoring new information Rather, they rely on well-learned and general scripts, especially when engaging in familiar activities Taylor (1981) maintains that people are 'cognitive misers' She asserts that judgements are often made quickly on little information, which is randomly processed using short-cuts, and is influenced by preconceptions

"Instead of a naive scientist entering the environment in search of truth, we find the rather unflattering picture of a charlatan trying to make the data come out in a manner most advantageous to his or her already-held theories" (Fiske & Taylor, 1984, p88)

Thus, it is alleged that attribution theorists may have presumed too much about the mental activity of individuals in the formation of causal ascriptions Yet, on the other hand, decades of research in attribution theory have provided support for its underlying assumptions I propose that there are ways of reconciling the inconsistency between the two views To do so, I draw on the research of Wells (1981), and Maher (1995) Wells (1981) suggests that people make causal inferences about their environment in two different ways through 'original processing' which entails the direct observation of relationships, such as the covariation between two events, and which occurs when stimuli cannot be assimilated into previous knowledge, and through 'socialised processing', whereby people adopt cultural and parental hypotheses or causal heuristics through language-based communication The prototype of the latter is the 3 to 5 year old's infamous habit of asking 'why' questions, which, Wells points out, are direct attempts to acquire rules in the art of attribution However, he notes that attributional theorists and researchers have almost totally ignored the notion of socialised processing Attributional rules acquired through socialised processing allow short-cuts to be made in the causal process This provides a partial explanation for the apparent inconsistency in evidence between classic models of attribution theory, and the newer theories in the field However, I propose that a third method of attributional processing is also needed in Well's model Similar to Kassin's (1981) 'third order' attributional principles, I suggest that individuals acquire their own theories through observing cause and effect relationships and from experiments with causal factors These causal schema guide inferences about how causes combine and operate, which in turn allow them to make causal ascriptions quickly and without much apparent mental activity

Maher (1995) offers another hypothesis to explain why people often ignore or fail to use situational information, and resort instead to attributional biases and short-cuts. She suggests that when people are under cognitive load (that is, cognitively busy), they are more likely to process information in a schema-consistent, short-hand fashion. Time pressure, fatigue, self-consciousness, need for cognitive closure, need for power and dominance, and actual possession of power may all, she suggests (citing research studies to support her argument), contribute to cognitive load. To these factors, I would argue, must be added depressed mood, which is also known to involve a cognitive load (see The Consequences of Attributions below). Thus, conditions of cognitive load may provide an explanation for the failure of individuals to use situational information, and their tendency to resort instead to attributional decisions based on causal schema or heuristics.

In sum, controversy exists in the field of attribution theory over whether people process information logically, although not infallibly, in the formation of causal inferences, or whether they are 'cognitive misers' using, wherever possible, short-cuts and heuristics. However, research exists that can integrate the two opposing camps. With this in mind, I turn now to a consideration of the second aspect of attribution (S-R) theory, the causes themselves and their properties.

Causal Dimensions

Initially, attributional researchers focused on a small number of the most salient causes of success and failure, such as ability, effort, task difficulty, and luck. Numerous studies were conducted to verify the dominance of these causal ascriptions from the almost infinite number of causal possibilities available. Subsequently, Weiner proposed that the various causes had a structure

"Underlying the enormous variety of causal factors is a taxonomy or classification scheme consisting of a small number of critical causal dimensions, along which all the causes vary. These critical causal dimensions have very specific consequences cognitively, emotionally and behaviourally" (Weiner, 1985a)

Consistent with Heider (1958), he first proposed that causes had an internal/external dimension, that is, some causes are attributed to factors within the person, others to

factors within the environment³ Subsequently, he added a second dimension of causality, stable/unstable, to explain why some causes fluctuate (e.g. mood), while others remain constant (e.g. ability) A third dimension, controllability, differentiates causes which are under volitional control (e.g. laziness), from those which are not (e.g. aptitude) However, what Weiner has not clarified is whether the control assumes only the perspective of the actor, or whether it is other-perceived or both This is especially important for external attributions can an external cause be perceived as controllable? As recently as 1992, he was no closer to a solution

"The obviously difficult problem that remains to be solved is whether controllability implies 'controllable by me' or 'controllable by anyone' "
(Weiner, 1992, p252)

In summary, Weiner's taxonomy proposes that causes of success and failure can be classified theoretically within one of eight cells (2 levels of locus x 2 levels of stability x 2 levels of control) Ability, for example, is classified as an internal, stable and uncontrollable cause Research has shown that Weiner's taxonomy matches well the distinctions that people actually make when considering explanations for success and failure (Laljee & Abelson, 1983), and empirical studies, in which factor and cluster analyses, multidimensional scaling, and correlations with a priori schemes have been used, have repeatedly uncovered the dimensions of locus, stability and controllability (Vallerand & Richer, 1988, de Jong et al., 1988, Michela et al., 1982) However, findings concerning the purported orthogonality of the three dimensions have not been so clear-cut (Anderson, 1983a, Vallerand & Richer, 1988) Weiner (1985a) has addressed this question, and suggests that causal dimensions may indeed be correlated in real-life situations, and that failure of orthogonality at the empirical level does not invalidate separation at the conceptual level. He cites height and weight as an example However, the question remains whether distinctions that are not substantiated at an empirical level can be useful at a theoretical level. Further research is needed to clarify this issue

Additional causal dimensions have also been suggested Abramson et al. (1978), for example, contend that causes also have a general - specific property Whilst the utility of this dimension has been demonstrated, especially in the clinical domain, and a meaningful

³ Weiner claimed that Rotter's 'locus of control' construct confused internality (locus) and control He therefore labelled the internal/external dimension in his taxonomy 'locus of causality' rather than locus of control

pattern of findings obtained in research on learned helplessness, psychometric evidence for it as an independent dimension is mixed (e.g. Corr & Gray, in press, Kent & Martinko, 1995a). Weiner (1985a) posits that intentionality is another possible causal dimension, and acknowledges that it differentiates well between effort and strategy. However, he argues against giving it dimensional status, as it tends to covary with control, and is more an action than a cause.

In describing the properties of the causal dimensions, Weiner writes

“Attributional decisions represent phenomenal causality - the causal world as perceived by the viewer. Thus the interpretation of specific causal inferences may vary over time, and between people and situations. But the underlying dimensions on which causes are “understood” or given meaning remain constant. That is, dimensions are conceived as invariant, whereas the location of any specific cause on a dimension is variable.” (Weiner, 1985, p.555)

Other theorists suggest that the attributional process may be more complex. Rather than assuming that attributions fit neatly into taxonomic classifications, writers such as Kelley (1983b) and Fletcher et al. (1986) contend that attributions are interconnected, and are structured in chains of events and networks of causes. They are of the view that causes may be either simple (where one cause leads to one effect), or complex (characterised by multiple combinations and connections), proximal to the focal event and interconnected or distal with no incoming links, stable or unstable and finally actual (real) or potential. Heaven (1994) suggests that the reason for the oversimplification of the attributional process to date lies with the factor analytic methods predominantly used in attributional research. Following Lunt (1990), he advocates the use of network analysis to uncover the complex chains of causation which cut across simple taxonomic classifications, and he illustrates his claims by using the technique to reveal the complexity of the perceived causal structure of poverty.

Certainly, the richness and complexity of attributional processing cannot be denied. But, while causal dimensions are an integral part of Weiner’s theory (see below), I am not sure that he intended them to be used prescriptively. Attributional taxonomies are merely a helpful tool for comprehending complex causal structure. They enable causes to be compared and contrasted quantitatively, as well as the effects of different groups of causes to be understood. They are particularly useful for diagnosing the need for, and

subsequently helping to bring about, attributional change This leads to the second component of attribution theory attributions and their consequences

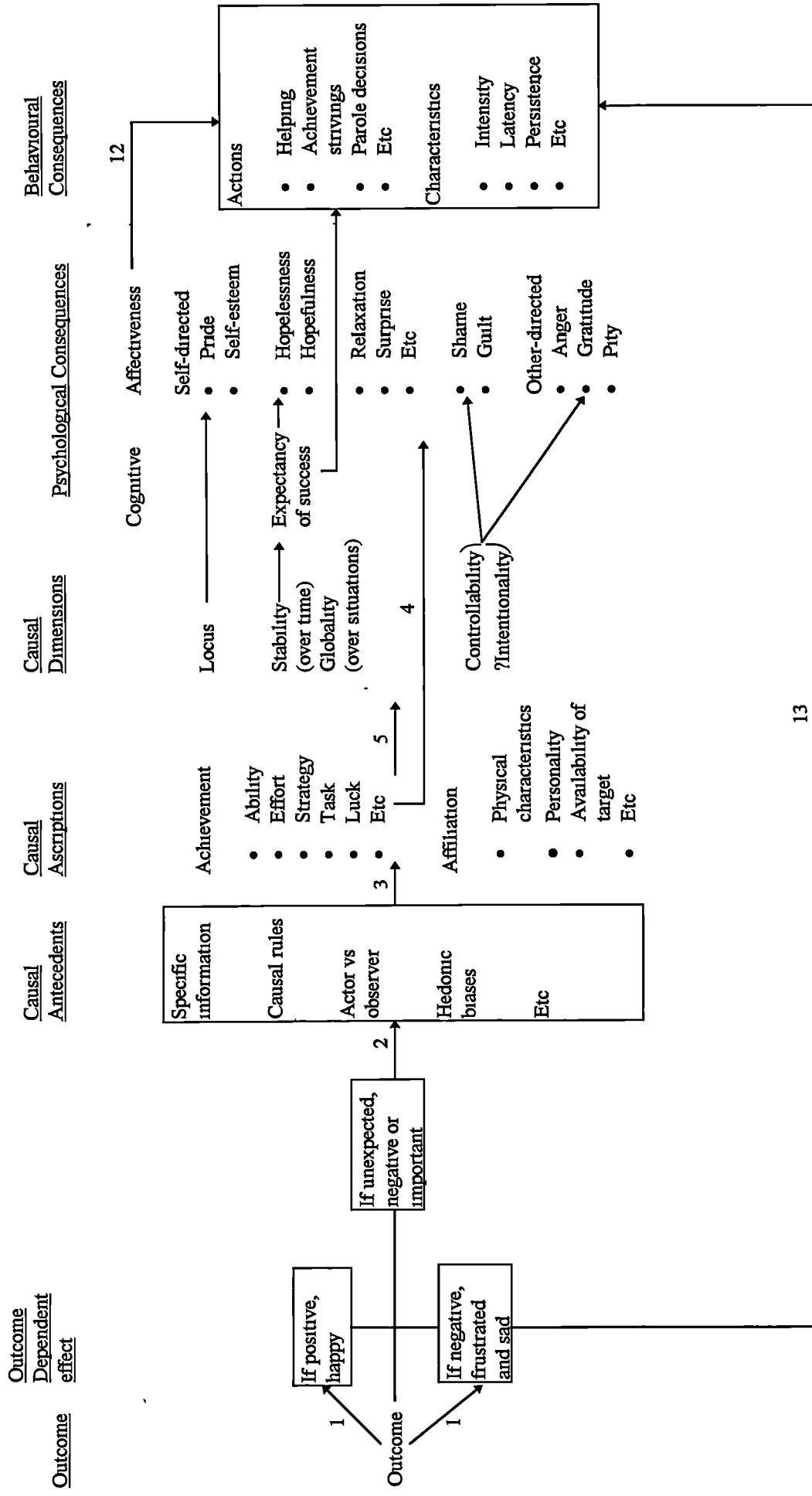
B. THE CONSEQUENCES OF ATTRIBUTIONS

The attributional (C-R) process refers to the psychological and behavioural consequences of perceived causality A number of areas have been studied, including the effect of attributions on social interaction (e.g. Kelley, 1972, Town & Harvey, 1981), achievement motivation (Weiner, 1986a), arousal (Schachter, 1964, Storms & Nisbett, 1970), depression (Miller & Norman, 1979, Abramson et al. 1978), loneliness (Peplau & Perlman, 1981, Anderson et al., 1983b) and close relationships (e.g. Fincham, 1985) Work in the area of achievement motivation and depression is most pertinent to this research project In particular, two theories, Weiner's attributional analysis of motivation and emotion (1986a, 1990), and the Abramson et al. (1978) attributional reformulation of the learned helplessness model of depression, are the basis on which the research has been set

Weiner's Attributional Theory of Motivation and Emotion (1986a, 1990)

Initially pertaining to achievement situations, Weiner's model demonstrated that the structure of causal thinking is related to expectancy and affect, which in turn direct motivated behaviour Weiner later extended his model to show its application to a range of different situations According to the model (Figure 2.2), the attributional sequence is initiated with the outcome of an event A general positive or negative reaction occurs, based on the perceived success or failure of the outcome (the "primary" appraisal) Weiner labelled these emotions "outcome-dependent - attribution independent" as they are determined by the goal-attainment (or non-attainment), and not by the cause of the outcome A causal search is then undertaken to determine why the outcome occurred (predominantly if the outcome is negative, unexpected or important) A large number of antecedents influence the causal explanation(s) that is reached, including the situational information such as consistency of behaviour and social consensus, the individual's

Figure 2.2 Weiner's Attributional Theory of Motivation and Emotion



causal schemata, and biases⁴ A variety of causes are possible, but Weiner notes that the choice tends to focus on ability and effort in the achievement domain, and physical characteristics and personality in the affiliative domain The cause can be located in dimensional space pertaining to its locus, stability and controllability Globality and intentionality are considered other causal properties Each dimension of causality has a primary psychological function or linkage the locus dimension has implications for self-esteem (attribution of success to internal factors leads to pride and positive self-esteem), the stability dimension is related to magnitude of expectancy change following success or failure (expectancy for future success is higher if success is attributed to stable causes or failure to unstable causes)⁵, as well as to feelings of hopelessness/hopefulness, and control is linked to helping, evaluation and liking⁶ These emotions are labelled "attribution-dependent" Finally, expectancy and affect are presumed to determine action (intensity, latency etc), the behavioural consequences Thus, low achievement striving results from a preference for stable and internal explanations for failure, which in turn leads individuals to give up in the face of failure (due to marked decreases in expectancies of success), and to avoid subsequent achievement-related activities because they are associated with negative emotions Similarly, lack of helping behaviour can be explained by outcomes for which the other is perceived to be responsible (controllable)

Weiner's theory continues to evolve, and the most current version is depicted in Figure 2.2 In a recent extension to his thinking (Weiner, 1990), he suggests that some of the linkages are not unidirectional as originally conceived He proposes that in addition to the original outcome causing an immediate affect, current affective state influences the interpretation of events, such that an ambiguous outcome is likely to be interpreted as a success if one is happy, and as a failure when sadness is experienced This reciprocity between outcome, perception and affect, I note, fits nicely with current thinking in the cognitive theories of emotional disorders, such as Beck's theory of depression (Beck,

⁴ In a recent extension to his model, Weiner (1990, 1991) suggests that communications from others, such as pity for students who fail, or praise for success at an easy task, also influence the causal explanation made

⁵ In contrast to researchers in the locus of control tradition, Weiner does not perceive the internal-external dimension as influencing expectancy

⁶ In early statements of his model, Weiner (1974) argued that the locus dimension of causality was the primary determinant of affective reactions to achievement outcomes More recently, particularly as he broadened his model to include non-achievement situations, he has indicated that each of the causal dimensions influences affective reactions (Weiner, 1985a)

1976) Other bi-directional linkages include the association between expectancy of success and attributions (prior expectancies influence perceived causal stability, and vice versa - Linkage 6), and between affects and attributions (affects such as pity and anger act as attributional cues when communicated to others, and at the same time, attributions influence affects - Linkage 10) Although Weiner's original model influenced the reformulation of the learned helplessness theory (Abramson et al, 1978 - see below), it is interesting to speculate whether the latter, in turn, may have influenced his thinking

Weiner suggests that the linkages of the causal dimensions with expectancy and affect in his model integrate attribution theory with expectancy-value theories of motivation (Atkinson, 1964, Lewin, 1935) Expectancy x value theorists maintain that motivation is determined by the valence of the outcome, as well as by the likelihood of achieving it (expectancy) According to Weiner's attributional framework, causal ascriptions for past performance (in particular causal stability) affect expectancy of goal attainment Whilst the value of a goal object is not influenced by perceived causality, Weiner suggests that the affective consequences of goal attainment or the subjective value of the goal are affected by causal ascriptions

Validation of Weiner's Theory

Weiner's model has been the impetus to much research and enquiry Many studies have tested the relationship between attributions on the one hand, and expectancies, motivation and performance on the other Research on achievement motivation, for instance, has shown that people low in achievement motivation tend to attribute their failures to a lack of ability (Anderson et al., 1983) As well, the effects of attributions on performance expectancies have been explored (e.g. Anderson & Jennings, 1980) Attributions have also been manipulated experimentally so as to produce changes in motivation and performance (see Weiner 1972, 1974, 1979 for a review of this literature) Numerous studies have also been conducted to test the attribution-affect linkage in the theory (e.g. Russell & McAuley, 1986), as well as the affect-action linkage (Weiner, 1980), and of course, a great deal of research has explored the veridicality of the causal dimensions posited by Weiner (see Causal Ascriptions above) In general, the

findings have confirmed the separate aspects of the theory, the bi-directional linkages have empirical support as well (e.g. Graham, 1984)

Fewer studies have tested Weiner's whole model. Covington & Omelich (1979) tested an earlier version of the theory which included need for achievement (nAch) in the etiological chain (Weiner & Kukla, 1970) and found little support. However, Prussia, Kimicki & Bracker (1993) found strong support for Weiner's (1985a) attributional model of achievement motivation and motivation (Figure 2.2), which omits nAch and concentrates on the formation of attributions, together with their emotional and behavioural consequences. Using covariance structure analysis, they examined the entire theory in a job-loss context (which has particular relevance for my research). Attributions for job loss were found to directly relate to both affective consequences and expectations for reemployment, and indirectly to the behavioural consequence of finding another job through expectations for reemployment (which significantly related to future employment success). However, the results also challenged the theoretical independence of the locus and stability causal dimensions (in line with other research, such as Anderson 1983a, Weiner & Kelley, 1982). The authors concluded that the dimensions are intercorrelated and may represent different aspects of a higher-order general attribution factor. Interestingly, the role of outcome-dependent (attribution-independent) affect in initiating causal search and finding another job was not supported, and positive affect (attribution-dependent) was not found to be related to subsequent reemployment.

Weiner's theory has been most influential, and continues to guide a significant proportion of studies in the achievement domain. It has also been applied to a variety of other domains, including interpersonal relations (Fincham, Bradbury & Grych, 1990), smoking cessation (Eiser et al., 1985), stress & coping (Amirkhan, 1990), alcoholism (McHugh, Beckman & Frieze, 1979), loneliness (Anderson, 1983), crime and parole decisions (Carroll, 1978) and helping behaviour (Meyer & Mulhern, 1980). In general, the full theory tends not to be engaged in these contexts, but path analyses confirm the validity of the segments that have been applied (e.g. Eiser et al., 1985).

To conclude, like Ellis (1974), Beck et al. (1979) and researchers in the learned helplessness tradition (see below), Weiner presents a cognitive approach to emotion and

behaviour. The embracing assumption guiding his theory is *'how we think influences how we feel and, and feelings guide actions'* (Wemer, 1986a). However, his cognitive perspective does not deny that some emotions are produced without intervening thought processes (e.g. conditioned fear, hormonally induced mood), and it also recognises the reciprocity between cognitions and affect. As such, it is compatible with the second theory on which this research project is based: the reformulated learned helplessness model of depression.

Attributional Reformulation of the Learned Helplessness Theory

Guided by Wemer's attributional approach to achievement behaviour, Abramson, Seligman & Teasdale (1978) developed an attributional reformulation of the learned helplessness model of depression to correct some of its inconsistencies. The original **learned helplessness model of depression** (Seligman, 1975, Maier & Seligman, 1976) hypothesised that exposure to uncontrollable events produced the belief that there is no association between responding and environmental outcomes, which resulted in a state of helplessness characterised by motivational, emotional and cognitive difficulties. The syndrome was compared to symptoms of depression in humans. But as human studies of learned helplessness began to appear, it gradually became apparent that the model could not predict the behaviour of humans as well as that of animals.

"When the original learned helplessness model was applied to people and tested, results were found to vary in ways not accommodated by the theory. In particular, sometimes the helplessness induced in the laboratory experiments involved long-lasting difficulties, and sometimes not, sometimes it involved pervasive difficulties, and other times not, and sometimes it involved a loss of self esteem and sometimes not. These three sources of contradictory evidence could all be explained by proposing that people's causal attributions for uncontrollability dictated the extent to which helplessness was chronic, pervasive and undermining of self esteem" (Peterson, 1991, p1)

Thus, the model was reformulated in attributional terms⁷. **The Reformulated Learned Helplessness (RLH) Model of Depression** (Abramson, Seligman & Teasdale, 1978) postulates that depression occurs when an individual expects that highly preferred outcomes are improbable, or that highly aversive outcomes are probable, and no

⁷ A similar attributional model was also proposed by Miller & Norman (1979)

response in the repertoire will change the occurrence of these outcomes⁸ Further, the model suggests that relation between perception of uncontrollability and depressive symptoms is mediated by an attribution of causality for the outcome that is perceived as uncontrollable The attribution chosen, in turn, influences the chronicity of future helplessness and whether self esteem will be lowered Thus, to quote Wortman & Dntzer (1978),

“According to the reformulated account, the individual first learns that certain outcomes and responses are independent, and then makes an attribution about the cause This attribution determines the person’s subsequent expectation for future noncontingency This expectation, in turn, determines both the kind of deficit and its generality and chronicity” (p76)

The sequence of events leading to symptoms of helplessness was depicted thus⁹ *Objective noncontingency -> Perception of present and past noncontingency -> Attribution for present or past noncontingency -> Expectation of future noncontingency -> Symptoms of helplessness* (Abramson et al, 1978, p52) It is emphasised that the attribution *predicts* the recurrence of the expectations of uncontrollability or helplessness, whereas the expectation *determines* the actual occurrence of the helplessness deficits

Three attributional dimensions were said to be relevant The model makes use of the internal/external¹⁰ and stable/unstable dimensions of attribution developed earlier by Weiner (1974), and adds a third dimension to the attribution process, global/specific Global factors are defined as affecting a wide variety of situations, whereas specific factors are more unique to the situation in which the helplessness occurred Each of the dimensions has a particular role to play the internal/external dimension affects self-esteem (lowered self-esteem is predicted to result from internal attributions for negative events) However, this dimension is neutral with regard to cognitive and motivational

⁸ Recognising the possible heterogeneity of depression, the reformulation, consistent with its predecessor, allowed that other factors, such as genetic vulnerability, norepinephrine depletion, or loss of reinforcers, may be sufficient to cause depression Thus, the expectation of uncontrollability was seen as a proximal sufficient, but not necessary, cause of depression

⁹ Later, in the face of evidence from their own and others’ studies, Abramson & Alloy (1981) clarified the reformulated model by indicating that all that is required for the occurrence of depression is the generalised expectation that important outcomes are uncontrollable, *regardless of whether this expectation is based on a veridical or nonveridical perception of control* (italics added) (p438)

¹⁰ It must be noted that Abramson et al define the internal/external dimension differently from Weiner They conceptualise it as a ‘self-other’ dichotomy, whereas Weiner defines the dimension as reflecting ‘self-environment’

deficits. The stability and globality dimensions determine the chronicity and generality of the helplessness expectations respectively.

It is interesting to note that the three attributional dimensions link almost precisely with Kelley's three covariation factors, in fact, it could be said that the covariation factors *inform* the three attributional dimensions. Thus, consensus information, how others have reacted to the situation, assists with the attribution of events to internal or external causes, consistency information, concerning how the person has reacted to the same situation in the past, informs attributional decisions about stability, and distinctiveness, how the individual has reacted to other similar events, determines how global the attribution will be. Parenthetically, one might note that Abramson et al. failed to draw these links in their theory.

The RLH theory thus provides a model of depression

“ depression will occur when the individual expects that bad events will occur, expects that he or she can do nothing to prevent their occurrence, and construes the cause of this state of affairs as resulting from internal, stable and global factors” (Seligman, 1981, p124)

Further, Abramson et al. suggested that some people develop a predisposition (through earlier social learning) to make internal, stable and global attributions for bad events. The construct of attributional style was incorporated into the model as a distal causal factor that constrains the attribution process, and influences the content of people's attributions for a particular event. It was defined as *“the tendency or bias to make particular kinds of causal inferences, rather than others, across different situations and over time”* (Alloy, Abramson, Metalsky & Hartlage, 1988, p16). Abramson and colleagues speculated that individuals who display a tendency to attribute negative events to internal, stable and global factors, and to view these events as very important, would be more prone to general and chronic helplessness depression with low self-esteem. They referred to this attributional predisposition as “hypothesised depressogenic attributional style” or “attributional diathesis”. However, the model also predicts that in the absence of negative life events or in the presence of positive events, people with a depressogenic attributional style will be no more likely to develop depression than those

not exhibiting this attributional style¹¹ Thus, attributions, and their precursor attributional style, are not sufficient to produce depressive deficits, but are risk factors for such deficits This is the diathesis-stress component of the theory

According to Abramson et al (1978), a significant advantage of the RLH theory is that it provides guidelines for therapy and prevention Four therapeutic strategies are suggested, each relating to one of the four premises underlying the model (Seligman, 1981):

Strategy 1 Environmental Changes designed to reduce the likelihood of aversive outcomes, and to increase the likelihood of desired outcomes

Strategy 2 Personal Control Training, for example, training in social skills, problem-solving, depression-management, decision-making, assertiveness, in order to increase the individual's expectation of controllability

Strategy 3 Resignation Training - when individuals do not have the skills to obtain the outcomes they want, they should be helped to establish more realistic norms, or find alternative desirable outcomes

Strategy 4 Attributional Retraining to change unrealistic attributions towards external, stable and specific factors for failures, and towards internal, stable and global factors for successes

Certainly, these guidelines for the treatment of learned helplessness are a strength of the model, and the RLH theory in general is very compelling However, consideration of the model within the wider context of attribution(al) theory, in my opinion, begs a number of questions

- Firstly, what is the critical factor determining expectancy of future control? The model claims that the overall attribution people make about their inability to control an outcome determines their expectancy of future control. Weiner, in contrast, argues that the attributional dimension of stability is the primary determinant of future expectancy Further, expectations of uncontrollability are defined as a proximal sufficient cause of depression in the Abramson et al. (1978) model, whereas Weiner views controllability as a causal dimension, leading to social emotions such as shame,

¹¹ Although not a direct prediction from the RLH theory, Seligman et al (1979) hypothesised that some depression-prone individuals may show a relatively enduring tendency to attribute positive outcomes to external, unstable and specific causes, and to view positive outcomes as unimportant

guilt, pity, anger There is a question, therefore, about the conceptualisation of control is it a cause or an outcome, and what determines future control?

- Secondly, what constitutes sufficient conditions for attributional processing to take place? The occurrence of an uncontrollable outcome? Or must the uncontrollable outcome be deemed important and/or aversive by the individual as the authors suggest (and as proposed previously by Weiner)? On the basis of his review of research, Weiner (1985b) concluded that attributional processing will take place if outcomes are perceived as *unexpected*, negative, or important Similarly Taylor & Schneider (1989) cite evidence to show that individuals create simulations of events that are unexpected, negative or important They suggest that attributions are one form of this cognitive activity
- Thirdly, what role do expectations of success or control play in the model? (Citing experimental studies, the authors suggest that success reverses helplessness deficits) What is the mechanism underlying this?
- Fourthly, what role do uncontrollable positive outcomes play? The model was initially silent on this point Later, Abramson & Alloy (1981), in response to a challenge from Schwartz (1981), stipulated that “*uncontrollable positive outcomes are not hypothesised to produce depression, only helplessness (motivational and associative deficits)*” (p438) They argued that even though nondepressives may be immune to developing expectations of noncontingency with positive outcomes (due to their use of cognitive illusions), it does not invalidate the causal link between expectations of uncontrollability and depression
- Fifthly, the internal/external dimension needs clarification Abramson et al. define it as referring to self - other (similar to personal - universal), yet they also argue that their internal/external dimension is the same as that used in Heider’s and Kelley’s analyses, which is defined as self - environment The two dimensions are not isomorphic Are they using internal/external interchangeably with personal/universal?
- How are attributions for events formed? Are they solely a function of an individual’s attributional style The reformulation gives only cursory mention to the role of situational information in the formation of attributions, despite the wealth of evidence from attributional research in social psychology¹²

¹² Three years after the publication of the reformulation, Metalsky & Abramson (1981) added that attributions are a joint function of both the individual’s stable, generalised beliefs, and the information inherent in the specific situation But little detail about the latter was given

Barely had the reformulation been published, when Abramson, together with her colleague Alloy, issued results of a set of studies that called aspects of the theory into question (Alloy & Abramson, 1979, Abramson & Alloy, 1981). Their findings showed that nondepressed students showed systematic biases in judging their personal control over events whereas, in contrast, judgements of contingency by depressed students were consistently accurate. These findings, Abramson & Alloy noted, were consistent with those of other researchers in the field of depression (e.g. Golin et al. 1979, Lewinsohn et al. 1980), and taken together, they admitted, challenged the helplessness theory's notion of cognitive deficit in depression.

Again, the failure of these writers to draw on theory and research in social psychology is disappointing. For more than two decades, attributional theorists have been writing about distortions and errors in normal lay reasoning which serve the function of protecting self-esteem and enhancing control, similar to the phenomenon "discovered" by Alloy & Abramson (1979). (Based on this research, an alternative to Abramson & Alloy's speculation that depressives lack the motivation to selectively filter data, might be that, in ruminating, depressives focus too much on the data and fail to use the heuristics and shortcuts used by non-depressives.)

A further problem for the reformulation was exposed in a longitudinal study by Hamilton & Abramson (1983) which indicated that negative attributional style was not stable, it did not persist beyond remission of the current depressive episode. Although Hamilton & Abramson speculated that the negative cognitive style may reappear when the formerly depressed patients experience life stress in the future, their findings clearly called into question a fundamental proposition in the reformulated model. Furthermore, not all of the depressed patients in their sample exhibited a negative attributional style during their depressive episode. Half of the depressed subjects exhibited cognitive styles approximating those of the normal subjects. This led Hamilton & Abramson to conclude that the link between mood and cognition is more complex than was originally thought, and to speculate that different sub-types of depression may have been the cause of their findings.

Subsequently, Abramson, Alloy and colleagues revised the reformulated learned helplessness theory, and renamed it the **Hopelessness Theory of Depression** (Alloy et al., 1988, Abramson et al., 1989). This theory predicts that hopelessness (the negative expectation about the occurrence of highly valued outcomes, and the feeling of helplessness about changing the likely occurrence of these outcomes), and, in turn depression, are more likely to occur when negative life events, which are viewed as important, are attributed to stable and global factors. Moreover, when negative events are attributed to internal as well as stable and global causes, hopelessness will be accompanied by lowered self-esteem. (This is an interesting revision of the 1978 reformulation, which stated that all internal attributions for negative events contribute to lowered self-esteem.) The new theory retains as its centrepiece the diathesis-stress mechanism, but introduces the notion of a domain-specific attributional style (which acts as a particular vulnerability to stressors in the same content domain). Further, the theory suggests that outcomes do not have to be perceived as uncontrollable to have causal ascriptions made about them - merely that they are perceived as negative. However, causal inferences are just one of the proximal contributory causes of hopelessness. The theory also stipulates that people make inferences about the consequences that will result from the event, and inferences about the self, both of which modulate whether they become hopeless, and in turn depressed.

Abramson et al. (1989) claim that an important advantage of the hopelessness theory, compared with the original helplessness theory (Seligman 1975), is that it specifies not only a proximal sufficient cause of depression, but also a sequence of events in the causal chain which culminate in the proximal sufficient cause (see Figure 2.3)

“The hypothesised causal chain begins with the occurrence of negative life events, (or the non-occurrence of positive life events), and ends with the production of depression symptoms. Each event in the chain leading to the proximal sufficient cause is a contributory cause of depression because it increases the likelihood of, but is neither necessary nor sufficient for, the occurrence of depressive symptoms. In addition, these contributory causes vary in how proximal they are to the occurrence of depressive symptoms” (p7)

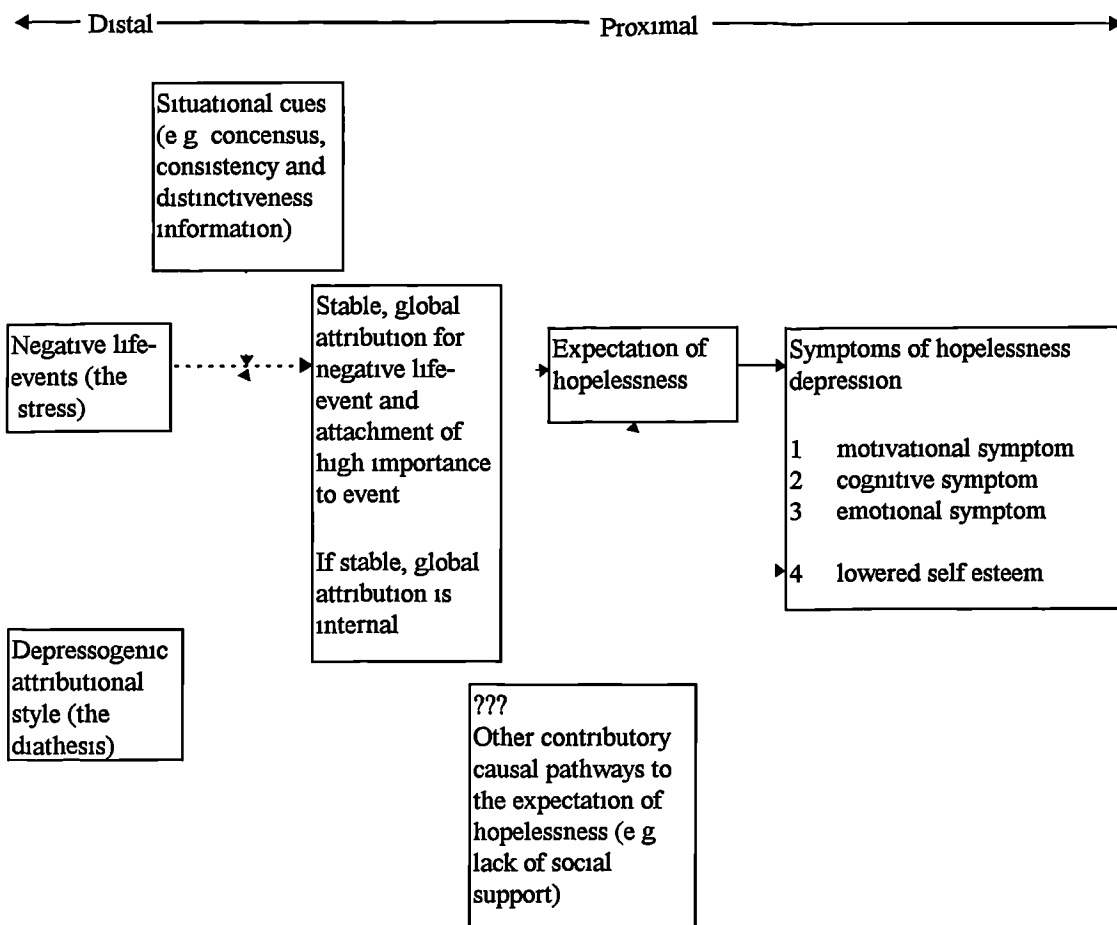
It is interesting to note that now some consideration is given to the causal antecedents

“People tend to attribute an event to the factor or factors with which it covaries. In this view, people would be predicted to make internal, stable and global attributions for an event when they are confronted with situational information suggesting that the event is low in consensus (e.g. failing a maths exam while

others do well), high in consistency (e.g. typically failing exams in maths), and low in distinctiveness (e.g. typically failing exams in other subjects as well as maths) Thus, informational cues present in a particular situation constrain the attribution process by making some attributions more plausible than others" (Alloy et al., 1988, p9)

The attributions people make about negative events were thus perceived as a joint function of situational information and the individual attributional style of the person. Particularly when reality is ambiguous, people project and impose their attributional style, it was hypothesised

Figure 2.3 Hopelessness Theory of Depression (Alloy et al., 1988)



Hopelessness depression is described as including a number of symptoms, but only two of the original four in the 1978 reformulation were retained: retarded initiation of voluntary responses (motivational) and sad affect (emotional symptom). The cognitive symptom was no longer included according to Alloy et al., because of disconfirming evidence from their work on depressive realism. Thus, in line with research in social

psychology, the model recognises nondepressive cognitive distortions. Further, the role of positive events was now specifically incorporated into the theory. It is hypothesised that people who characteristically attribute positive events to stable and global causes are likely to become hopeful, and in turn non-depressed when confronted with good events (Needles & Abramson, 1990). Thus, attributional style for good events is hypothesised to play a role in the recovery from depression.

The hopelessness revision of the RLH theory is a well-conceptualised, tightly-formulated theory. It is pleasing to see how often the authors have buttressed their theory with other bodies of psychological theory, indicating points of similarity and departure. Furthermore, like Weiner's theory, it offers a framework for wider application beyond the immediate clinical subject of depression. However, as a model of depression, it does not stand alone. There are numerous other psychological theories of depression, both cognitive and non-cognitive, such as Beck's cognitive theory of depression (Beck et al., 1979), Rehm's self control model (Rehm, 1977), the response-style model of depression (Nolen-Hoeksema, 1991), Lewinsohn's behavioural approach focusing on reinforcement and social skills (Lewinsohn, 1974), to name but a few. The utility of the RLH/hopelessness theory, both as a model of depression and for other applications, will stand or fall on its empirical validation, to which I turn next.

Empirical Testing of the RLH and Hopelessness Theories

Despite a voluminous research literature, controversy still exists about the RLH theory. Part of the problem stems from the fact that, similar to Weiner's theory, only segments of the model have been tested, rather than the entire theory. Furthermore, the segments that have been put to the test have often been examined inadequately, with variable results.

1 Attribution - depression relations

The contention that an attributional style may exist, and is correlated with, and may predispose to depression, is by far the most tested hypothesis. Peterson & Seligman (1984a) reviewed 22 studies encompassing cross-sectional investigations, longitudinal investigations, naturalistic experiments, laboratory experiments and content analysis of

transcripts, and concluded that the different studies converged in their support of the relationship between attributional style and depression. Sweeney, Anderson & Bailey (1986) conducted a meta-analysis of 104 studies involving nearly 15,000 subjects, and found reliable associations between attributional style and depression. But, other reviews have not corroborated these findings. Coyne & Gotlib (1983), for instance, concluded from their review of studies (many of which were the same as those reviewed by Peterson & Seligman, 1984a), that inconsistent support existed for the relation of depression to any of the three attributional dimensions. These authors contended that studies using a measure of attributional style involving hypothetical events, such as the Attributional Style Questionnaire, were more likely to support the notion of a depressive attributional style.

Clearly, the relationship between attributional style and depression still has not been fully determined. An oft-cited criticism (e.g. Williams, 1985, Robins & Block, 1989, Abramson et al., 1989) is that many of the empirical studies fail to test both the diathesis and stress components of the theory (e.g. Golin, Sweeney & Schaeffer, 1981). Two studies that did fulfil this condition (Cutrona, 1983, Metalsky et al., 1987) provided support for the RLH theory. Another problem has been the unsophisticated nature of many of the research designs. Peterson Villanova & Raps (1985) compared confirming and disconfirming studies, and concluded that the disconfirming studies tended to use inappropriate methods. Robins (1988), in a meta-analysis of 87 studies, found that the majority of the studies had inadequate power to detect an effect if one was present. When only studies with adequate statistical power were considered, the findings confirmed that stable and global attributions, as well as the composite, were related to depression, and, consistent with the hopelessness revision of the RLH theory, there was little support for the relationship of internal attributions to depression (c.f. Coyne & Gotlib, 1983).

The causal relation between attributional style and depression has also attracted a strong research interest, but the direction of causality is open to dispute. Some writers have maintained that attributional style causes depression, others have claimed that the reverse is true, and others still posit that the effect is bi-directional (e.g. Peterson & Seligman, 1984a). Brewin (1985) has outlined five different models of the role of attributions in

depression, each consistent with the positive correlation between attributions and depression. Attributions are a symptom of depression, involved in its onset, a risk-factor, involved in recovery from, or enhance resistance to depression. Three of the models are supported by the literature. Brewin is cautious about his conclusions, but does say that attributions

“ are probably influenced by clinical states, but in addition, they do have considerable predictive value, and might well play a part in the process of recovery from, and coping with depression” (Brewin, 1985, p307)

In 1988, Brewin summarised the state of RLH research thus

“Yet, in spite of a decade of research on causal attributions and depression, the relation between the two is complex and not fully understood” (Brewin 1988a,p1)

Seven years later, there is still no agreement that a cross-situational attributional style exists, nor has its relationship with depression been adequately defined. Brewin (1991) claims that only a minority of depressed patients reveal a depressive attributional style, and that what the ASQ (the most commonly used measure of attributional style) is assessing is not some internalised rules about making explanations, but *“some important aspects of cognitive content that are extremely relevant to health and pathology”* (p20). He postulates that the cognitive content is likely to be concerned with knowledge about the self, and that different aspects of it can be selectively accessed at different times by specific environment cues *“so that the style observed when individuals are depressed or in specific social situations may be rather different from the style they habitually endorse”* (p21). This explanation would go some way, I would suggest, towards explaining the wide array of correlates with attributional style - depressive symptoms, social estrangement, academic failure, work problems, poor health, longevity of life, deficits in help-seeking. In fact, Peterson (1991) has called it a “velcro construct”

2 Causal Mediation Processes

A number of factors are hypothesised to act as distal contributory factors in the etiological chain leading to hopelessness depression. Abramson et al. (1989) cite research studies that support the separate linkages. First, it has been shown that individuals' attributional styles predict the particular causal attributions made for negative life events (Metalsky et al., 1987, Alloy, Kayne et al., 1988). Second, the link between attributions or attributional style and hopelessness has been demonstrated (Alloy

& Ahrens, 1987, Weiner, 1985a) Thirdly, studies have shown that situational information together with attributional style predicts causal attributions for life events, (Haack et al, 1988, Crocker, Alloy & Kayne, 1988)

3 Causal Dimensions

The RLH theory posits the existence of three attributional dimensions - internality, stability and globality - and predicts that each has a disparate effect on emotions and behaviour Brewin (1985), drawing on research in a number of psychological domains, cites studies which confirm the relationship between internality and self-esteem, stability and expectancy of success, although weaker relationships were reported between globality and pervasiveness of helplessness deficits

The existence of the globality dimension as an independent causal dimension has yet to be empirically verified Weiner (1985a) records that the dimension did not emerge in any of the studies he reviewed Furthermore, Peterson (1991) notes that stability and globality often correlate highly with one another, so much so that he suggests they be regarded as a common factor of hopelessness Factor analytic studies support his suggestion Typically, it has been found that internality loads on to one factor, and stability and globality load on to another orthogonal factor (e.g. Corr & Gray, in press) Anderson & Deuser (1991) argue that the dimension is redundant

“The target dimension (e.g. globality) is included in the theory because of a theoretical belief that it contributes something unique to the understanding and prediction of the target problem (e.g. depression) If the dimension does not contribute a significant unique piece, then the specific theoretical prediction has been disconfirmed” (Anderson & Deuser, 1991, p15)

Their argument is a sound one, but I would suggest that further disconfirming studies are needed to invalidate the dimension's utility at the conceptual level

Similar to Weiner (1985a), the possibility of more than three dimensions of causality is also recognised by RLH researchers For example, controllability has been frequently cited as an important dimension, both theoretically and empirically, in the RLH model (Brewin, 1991, Anderson & Deuser, 1991) However, Peterson (1991) claims that perceptions of controllability can be inferred from the particular causal explanations made

“A bad event believed to have an internal, stable and global cause is arguably one that will be regarded as uncontrollable, and vice versa for a bad event explained with an external, unstable and specific cause” (Peterson, 1991, p2)

This statement has brought a chorus of protest from researchers in the field. In reply, Peterson suggests that there is probably not a basic set of dimensions invariant across domains and cultures, and that the theoretical issues being addressed in an investigation should dictate the causal dimensions assessed. This seems to me to be a questionable assertion. To apply causal dimensions on an ad hoc basis would surely reduce the predictive power of a theoretical model.

4 Testing the Full Model

Despite the enormous amount of research the RLH (and hopelessness) theory has attracted, Alloy et al. (1988) allege that it has been inadequate. They suggest that it has been characterised by *“a failure to appreciate the full methodological implications of the kinds of causal relationships among variables specified in the theory, as well as the heterogeneity that may exist among the depressive disorders”* (p13). Thus, they point out, because attributional style is a distal contributing cause of hopelessness, it is possible to obtain strong, weak or no differences in attributional style between depressed and non-depressed subjects. The real test is whether the proximal sufficient cause, hopelessness (or expectation of uncontrollability, according to the 1978 reformulation) leads to depression, and specifically to hopelessness depression. They lament that, to date, this aspect of the theory has remained untested. However, it is not as simple as Alloy et al. suggest. Peterson & Seligman (1984a) deliberately chose to focus their research on measuring attributional style, and *“not on the expectation itself, even though it is more proximate to the symptoms, because we do not believe that a valid means of measuring expectations yet exists”* (Peterson & Seligman 1984a, p350).

Abramson, Alloy and colleagues outline a very detailed research strategy to test the theory. However, the conditions they stipulate as necessary for a full evaluation, in my opinion, render the theory virtually untestable (see Alloy, Hartlage & Abramson, 1988). For example, to examine the interaction of the cognitive diathesis and life stresses in predicting hopelessness depression, they specify that only hopelessness depression must be tested. They maintain that hopelessness depression must be identified and isolated

from other forms of depression, not on the basis of symptoms (which could be shared with other forms of depression), but on the basis of the causal mechanism producing it. Yet, to identify hopelessness depression by the causal chain producing it, and then having identified it, evaluate the causal chain to ascertain if it is veridical, I would assert, is tautological. Further, the concept of specific vulnerability in the RLH model implies that there must be a match between an individual's cognitive style and the content of the negative life events she or he confronts for the interaction to contribute to the onset of depression. Alloy et al. (1988) assert that it is necessary to examine negative life events from all domains from which a person may have a negative attributional style (but how is this to be ascertained?), and each of the life events must be accurately dated. Does real-life experimental research allow such precision?

Remaining Questions in the Reformulated LH Model of Depression

There are many questions that require further investigation in the RLH model, but three are specifically relevant for the research outlined in this thesis:

1) How Stable Is Attributional Style?

One major weakness of the reformulation is its lack of clarity about the consistency of attributional style over time. On the one hand, it does not explicitly state that when depressed individuals recover, they maintain a depressogenic attributional style. On the other, the notion of attributional style as a vulnerability factor to depression implies that it is relatively stable over time. Empirical evidence is also mixed. Studies by Golin et al. (1981) and Peterson et al. (1982) using student samples have shown that attributional style is stable over periods of 4 to 5 weeks. Eaves & Rush (1984), in a study of depressed subjects, found that, even with remission, depressogenic attributional style persisted. However, other studies have reported that attributional style improved as subjects recovered from depression (Persons & Rao, 1985; Hamilton & Abramson, 1983). In addition, therapy, good or bad life events and even experimental manipulations have been shown to change attributional style (Seligman, 1981; Anderson, 1983b). Seligman et al. (1988) conclude

"At this point, the most we can say is that cognitive therapy (and possibly the onset of depression) change attributional style, but attributional style appears trait-like in the absence of those factors" (p17)

It is possible that the mixed findings concerning the situational and temporal consistency of attributional style are due to the psychometric qualities of the Attributional Style Questionnaire (Peterson et al., 1982), the most commonly-used measure of the construct. It is a broad-based instrument, including items from both the achievement and affiliation domains. It is possible that a domain-specific version of the ASQ would indicate more temporal consistency, and correlate more closely with attributions for specific situations. Recent findings support this hypothesis (Henry & Campbell, 1995). Clearly, further research is needed to determine the state/trait status of attributional style, but what is important to note is that it has been shown to change during cognitive therapy (Firth-Cozens & Brewin, 1988, Seligman et al., 1988).

1) The Role of Attributional Style for Good Events

The significance of attributional style for good events is yet to be adequately determined. Peterson & Seligman (1984a) suggest that two generalisations can be made from the research conducted to date: first, attributional style for good events is often independent of attributional style for bad events, second, the correlates of attributional style for good events tend to be the opposite of the correlates of attributional style for bad events, and usually less robust¹³. But what is the theoretical significance of attributional style for good events? A number of hypotheses have been offered:

a) Needles & Abramson (1990) argue that attributional style for good events is important in the recovery from depression. Specifically, they propose that depressives who have an enhancing attribution style for positive events (that is, make stable and global attributions for such events) are more likely to regain hopefulness and thereby recover from depression when positive events occur. Results from a six-week longitudinal study supported their prediction.

¹³ Using another measure of attributional style, the Attributional Style Assessment Test (Anderson et al., 1988), Anderson reports the reverse of these findings: that attributional styles for good and bad events were significantly correlated, and that the relationship of good event attributions to depression were equal to or stronger than that for bad-event attributions (Anderson & Deuser, 1991). The discrepancy in findings could, of course, be a function of the different measure.

b) Peterson (1991) postulates that attribution style for good events may act as a buffer against the depressing effects of loss and disappointment. Lefcourt (1991) comments that the stress literature provides support for this hypothesis.

c) Anderson & Deuser (1991) advocate returning to the original learned helplessness theory. If learned helplessness and depression results from perceptions of lack of control, they argue, then the model must predict that perceptions of lack of control for success should relate to depression in the same way as those for failure.

My opinion is that attributional style for good and bad events are different, although related, constructs, and that attributional style for good events is a variable in its own right, with its own set of correlates, and not just a buffer against negative events, or an aid to recovery from depression¹⁴. Positive attributional style correlates with indices of success (Furnham et al., 1992, Corr & Gray, 1995c), whereas negative attributional style is correlated with depression and giving up. Thus, a low negative attributional style is not the same as a high positive attributional style, and attempts to enhance optimism, persistence or achievement must both reduce negative attributional style and increase positive attributional style. For the same reasons, the use of an overall composite score for attributional style (bad events minus good events) cannot be justified.

That inconsistencies exist in the attributional literature concerning the status of positive attributional style, may offer support for the humanists' long-standing argument that we psychologists focus too exclusively on the negative. Mental health is not just the absence of negative factors. Yet, concern with psychopathology (from whence the RLH model came) can often ignore positive factors. It is interesting to note that Weiner's attributional theory, a non-clinical theory, whilst not recognising the notion of an attributional style per se, does incorporate the role of attributions for positive events (those that are unexpected or important), along with the negative events.

¹⁴ This position has recently been supported empirically. Corr & Gray (in press) have shown that positive and negative attributional style, as measured by the Attributional Style Questionnaire (Peterson et al., 1982) are independent, with different factor structures.

m) The Role of Reality

The RLH theory has tended to ignore the reality of the situation about which the individual makes attributions, assigning a greater role to the notion of attributional style than, in my opinion, the construct can adequately cope with. Certainly, the role of situational information in the formation of attributions was included in the hopelessness revision. But the research has, nonetheless, tended to neglect its influence on causal inferences (Peterson, 1991). Yet, the reality of the situation cannot be overlooked, as attributional theorists within social psychology have demonstrated. Of course, there are many occasions in which the situational information is disregarded (or overruled), or is simply not available, and attributional biases, schema or styles have their sway, but its role as a possible causal influence must be given attention. In terms of the development of effective attributional interventions, it is especially important. Further research is needed to ascertain the conditions under which the reality of the situation is taken into consideration, and when not. Brewin & Furnham's (1986) research on the role of "pre-attributional" variables, Maher's work on cognitive load (Maher, 1995), and Lord's theory about the relation between implicit and explicit processes in causal attributions (Lord, 1995) are important steps forward in this direction.

In a related vein, Alloy et al. (1988) have suggested that two different classes of attributional style may exist: belief-based (the tendency to rely on certain generalised beliefs to resolve causal ambiguity), and evidence-based (the tendency to rely on certain patterns of situational information to resolve causal ambiguity). However, this aspect of their thinking needs clarification. The dual classification is not reflected in the measure developed to assess attributional style, the Attributional Style Questionnaire (see Chapter 4), and to date there has been no evidence to suggest that people display a consistent and individualistic 'style' in processing situational information. It is conceivable that they do, particularly with regard to the biases and distortions that have been noted in attributional processing. However, further research is needed to take this notion beyond the realms of speculation.

Applications of the RLH Theory

Like Weiner's model, the RLH theory, or parts of it, have been applied in a number of different contexts. Again, it has been the attributional style construct that has attracted the most research interest. An array of correlates has been found, including

- school achievement (Nolen-Hoeksema, Girgus & Seligman, 1986)
- undergraduate grades (Peterson & Barrett, 1987, Schulman et al, 1991),
- sporting achievement (Seligman, Nolen-Hoeksema, Thornton & Thornton, 1990)
- political success (Zullov, Oettingen, Peterson & Seligman, 1988),
- health (Peterson 1988, Peterson & Bossio, 1991),
- longevity (Peterson, Seligman & Vaillant, 1988)
- immune function (Kamen-Siegel et al, 1991)
- labour turnover, productivity and job success (see Attribution Theory and Organisational Behaviour below)

Some researchers allege that the abundance of correlations renders the concept almost meaningless, that it has become a catchall. Zullov (1991), for example, suggests that attributional researchers must specify which phenomena it should predict, and why. But Peterson (1990) reminds researchers that, to the degree attributional style relates to depression, it is only through the intermediary of learned helplessness. Thus, attributional style should affect a variety of outcomes in which helplessness is arguably important, such as academic and athletic performance (and by extension, performance at work)

Similarities Between the Weiner and Abramson et al. Attributional Models

Despite the different psychological stables from which they originate, I propose that the two theories have some interesting similarities

1 Both perspectives view hopelessness as a proximal sufficient cause of the main outcome (depression /achievement, helping etc), although different emphases are given to its role. The Abramson et al. theory posits hopelessness as the proximal sufficient cause, Weiner, in comparison, views hopelessness as a consequence of low expectancy



of success, which is more central to his thesis. Nevertheless, both view hopelessness as an expectation (rather than an affect)

2 Each model views attributions as distal contributory factors, which, according to their specific nature and underlying dimensions, have affective, cognitive and behavioural consequences

3 Both Weiner's theory and the RLH model suggest that prior knowledge and situational information are used in the formulation of causal ascriptions, although again, different emphases are evident

4 The reformulation suggests that schemata about causality (attributional style) guide the interpretation of events, and, although this is not explicitly stated as a causal antecedent in Weiner's theory, it is not incompatible with his model. In his description of causal antecedents, Weiner incorporates causal rules, and refers the reader to Kelley & Michela (1980), who suggest that causal schemata "*the common person's conception of how two or more causes combine to produce a certain effect*" (p471) influence the attribution process

5 Both theories acknowledge the psychological relevance of causal dimensions, particularly in terms of their ability to give meaning to the cause, and to predict subsequent affect and behaviour, and each gives a central role to a small number of key dimensions (whilst acknowledging that there could be more). The locus and stability dimensions are common to both models, with equivalent psychological consequences posited. The models differ on the nature of the third dimension - controllability or globality

6 Both models consist of an etiological chain, although Weiner's model goes a step further in the chain and outlines the linkage between affect (and expectancy) and action. However, it could be argued that the Abramson et al. model links affect and inaction (the motivational symptom of hopelessness depression)

7 Both models outline interventions at each linkage in the chain. Each offers a variety of intervention approaches and strategies pertaining to different points in the chain. Thus, in addition to acting as an explanatory framework, both models act as an

organising rationale for interventions They are used in precisely this way in the research described in this thesis

2.3 ATTRIBUTION THEORY AND ORGANISATIONAL BEHAVIOUR

Despite the well-established link between attribution theory and achievement, the application of attribution theory to the occupational context has been a relatively recent phenomenon Indeed, the first book focusing on attribution theory from an organisational perspective was only published this year (Martinko, 1995) The research has tended to focus on interpersonal issues, such as how leaders react to subordinate behaviours (e.g. Ashkanasy, 1995), the dyadic exchange of attributions in leader/member relations (Martinko & Gardner, 1987), and attributional biases in performance appraisals (e.g. Dobbins & Russell, 1986a, 1986b) Attribution theory has also been used to explain the formation of leadership perceptions, through, for example, the assessment of causality for organisational outcomes (e.g. Lord & Maher, 1991), and the leader's psychological impact on followers (Farquhar, 1995) However, the quality of the empirical research at this interpersonal level, in my opinion, is mixed Like organisational stress research, a lot of it seems to be of the exploratory or descriptive kind, often with only tenuous links to a theoretical model (or a number of loosely gathered models), and using non-validated measures Theory development and validation appear to be less popular, although there are some good examples (Green & Mitchell, 1979, Bitter & Gardner, 1995, Ashkanasy, 1989, 1995)

Martinko & Gardner's Interactive Attributional Model of Leader/Member Relations (1987) is one such example of a carefully-conceptualised, empirically-validated theory It is particularly relevant to my research The model focuses on the process by which leaders make attributions for subordinates' performance, as well as the attributions and responses of subordinates In brief, it suggests that leaders and members use covariation analysis and causal schemata (Kelley, 1972) to make causal attributions, although the attributional processes are moderated by attributional biases and individual difference variables As a result, the attributions formed by a leader and a subordinate about the subordinate's performance can be quite different This, in turn, creates differences in

expectations about rewards and punishments, as well as about future performance, and it influences the subsequent interactions between manager and employee. Drawing on the RLH theory, the model outlines two combinations of leader/member attributions and responses which are likely to lead to helpless behaviour on the part of the subordinate.

- 1 Employees attribute their failure to ability, whereas their managers attribute it to the employee's ability, task difficulty or bad luck. Although the managers will probably refrain from punishment, since the failure appears to be due to factors beyond the subordinates' control, the model predicts that the latter will become helpless, since they have attributed their failure to internal, stable and global factors.
- 2 The employee attributes failure to lack of ability, but the manager blames it on low effort, and as a result, withdraws rewards or punishes the subordinate. The subordinate is likely to view the punishment as inappropriate, since he or she has attributed the failure differently. In effect, the leader has added punishment to what the member perceives as uncontrollable failure, which will increase the probability of feelings of helplessness. Employees will feel they are unable to meet managers' expectations, conversely the managers will perceive them as low achievers who do not deserve organisational rewards, and the interactions between the two will deteriorate. Eventually, these subordinates may find themselves in an "outgroup", they will tend to remain low performers until they are either dismissed, or they resign (Martinko & Gardner, 1987, p244)

Martinko & Gardner's model has received empirical support from diverse quarters. Firstly, the model is derived from the Green & Mitchell (1979) model of leader-follower relations (which utilises Weiner's attributional theory and Kelley's covariation model to predict leaders' responses to subordinate behaviour), as well as from the RLH theory (Abramson et al, 1978) - all of which have attracted large research literatures. In addition, research in the related area of leader/member exchange theory confirms that supervisors categorise subordinates into ingroups or outgroups, and that they make attributions about the subordinate's performance which are consistent with the categorisation (Wilhelm et al, 1993), dispositional attributions about the subordinate, as a result, are more likely, and situational information tends to be ignored, especially when the supervisor is under cognitive load (Maher, 1995). The attributions also affect the supervisor's behaviour towards the subordinate, which in turn acts to strengthen the

category label Mitchell & Wood (1980) found that, consistent with Jones & Nisbett's actor/observer bias (1972), leaders were more biased towards internal attributions for poor employee performance. Causal attributions to effort have been shown to be a primary determinant of managers' performance evaluations and subsequent rewards and punishments, whereas ability attributions are less likely to elicit punitive responses (Mitchell et al., 1981, Green & Liden, 1980). Attributional congruence within manager-subordinate dyads, on the other hand, is associated with higher evaluations of subordinate performance and greater subordinate job-satisfaction (Greene, 1972, Wexley et al., 1980). In brief, this research, together with that investigating the Weiner and Abramson et al. paradigms, provides support for the Martinko & Gardner model.

Although research into interpersonal attributional processes in organisations, as mentioned above, is growing, less attention has been devoted to intrapersonal attributional models in organisational research, even though such models have been a major focus of attention in social psychology (Martinko, 1995). There have been some conceptual papers describing the role of attributions in work motivation, (e.g. Evans, 1986, Martinko & Gardner, 1982, 1987), but empirical research in the intrapersonal domain has been limited (e.g. Parson et al., 1985). According to Kent & Martinko (1995a), two issues need attention in organisational attributional research: the measurement of attributions and the notion of attributional style.

- 1 One major criticism of attributional research in organisational behaviour has been the lack of psychometrically-sound instruments for assessing attributions (Ilgen & Klem, 1989a). Kent & Martinko (1995a) note that many organisational researchers, for example, "force" their data by classifying subjects' attributions along predetermined causal dimensions, thereby making assumptions about the meaning of the respondents' causal ascriptions, the "fundamental attribution researcher's error" (Russell, 1982). The Attributional Style Questionnaire (Peterson et al., 1982) avoids this problem by having the subjects classify their causes along the attributional dimensions, but it does not relate specifically to work contexts. Recently, two attributional style questionnaires have been developed for use in organisations, the Occupational Attributional Style Questionnaire (Furnham et al., 1992), and the Organisational Attributional Style Questionnaire (Kent & Martinko, 1995b). A third work-related

attributional style questionnaire has also been developed as part of the research for this thesis - it is outlined in Chapter 4

- 2 Kent & Martinko (1995a) also claim that, despite its obvious relevance, the construct of attributional style has received minimal consideration in organisational research. I suggest that this has changed recently with the emergence of a few noteworthy studies exploring the association between attributional style and labour turnover, productivity and job success. For instance, Seligman & Schulman (1986) found with insurance salesmen that negative attributional style correlated with poor productivity in the first two years of the job, and that a composite of positive and negative attributional style predicted job retention and sales performance in the first year. Corr & Gray (1995c) replicated these results in the UK, although interestingly, they found positive attributional style to be more strongly correlated with sales effort and performance than negative attributional style. Again in the UK, Furnham et al. (1992) demonstrated that positive attributional style was related to occupational status, salary, job satisfaction and intrinsic motivation. Attributional style has also been shown to predict success in selection interviews (Silvester, 1994), as well as computer-related performance and attitudes in work settings (see Rozell & Gardner, 1995). Clearly, attributional style is a rich and useful construct in organisational contexts, and is worthy of further attention and investigation.

Nevertheless, despite the applicability of both the Weimer and Abramson et al. models for enhancing achievement-related attitudes and behaviours in organisational settings, and recommendations in the literature for attribution training for leaders and employees [for example, to improve performance evaluations (Bitter & Gardner, 1995)], the development, implementation and evaluation of such attributional training interventions in organisations has not been studied to date, as far as can be determined. It is, however, the focus of the current research project, and will be outlined in detail in subsequent chapters. But at this stage, some background about attributional change programmes is warranted.

2.4 ATTRIBUTIONAL CHANGE PROGRAMMES

Attributional interventions can be categorised into two groups those which attempt to change subjects' nonfunctional attributions to more realistic ones - reattributional training - and those that are concerned with the misattribution of internal arousal or overt behaviour, and the subsequent influence on emotional expression and pain tolerance - "misattribution training" (Fosterling, 1980)

i) Misattribution Training

Misattribution interventions were stimulated by Schachter & Singer's (1962) two-factor theory of emotion, which maintains that emotional states result from an interaction of physiological arousal and cognitive processes. Thus, it was reasoned, negative emotional states, such as anxiety, can be altered by providing individuals with 'nonemotional' cognitive explanations for their arousal in emotional situations (Fosterling, 1990). In a classic study, Storm & Nisbett (1970) gave insomniacs a placebo pill, leading them to believe that it was responsible for the arousal they normally experienced whilst trying to fall asleep. The aim was to change the subjects' attribution for their arousal from an internal emotional cause to an external unemotional one (the placebo). As predicted, subjects took less time to fall asleep. Misattribution interventions have been used with a variety of problems including anxiety, depression and pain tolerance (Ross, Rodin & Zimbardo, 1969, Nisbett et al., 1976), but they have not always achieved positive results. Furthermore, they rely on deception. As they are not the focus of the current research, they will not be discussed further here.

ii) Reattributional Training

Reattributional interventions are guided by the attributional model of achievement motivation (Weiner, 1986a) and the RLH theory (Abramson et al, 1978), which have given rise to the premise that achievement behaviour and depression can be positively influenced by altering causal cognitions. In the educational sphere, attributional retraining programmes have addressed a diversity of phenomena including arithmetic tasks, reading performance, college drop-out rates and general academic performance.

In most studies, the attribution of failure to lack of effort has been the dominant direction of change. For example, Dweck (1975), in a pioneering study, illustrated that underachieving children were characterised by their attribution of failure to lack of ability. By training them to reattribute to lack of effort (unstable and controllable cause), she found that their persistence and performance were substantially improved. A variety of techniques have been used, including reinforcement of desirable attributions (e.g. Andrews & Debus, 1978), explicit mention or modelling by an experimenter of effort attributions (e.g. Medway & Venino, 1982), and the provision of antecedent information (e.g. Wilson & Linville, 1982). Most interventions, however, have relied on persuasion in one form or another. Forsterling (1985) reviewed fifteen attributional retraining studies, and reported that improvements in expectancies of success, persistence and performance accrued consistently from the programmes¹⁵

Attributional change interventions have also been used in social contexts (e.g. Anderson, 1983b), and they are common in clinical psychology, where they have been used to help individuals with problems ranging from depression, insomnia, panic attacks, to excess weight and low self-esteem (Brewin 1988b). The most popular methods have been to suggest explicit alternative attributions, or to provide information to replace previous false assumptions held by clients, with the expectation that it will lead to attributional change. For example, veridical relabelling of symptoms (using consistency and distinctiveness information) has been used successfully in the treatment of panic attacks (Clark et al., 1985).

Yet, despite the success of the various attributional interventions in enhancing achievement and well-being, the most effective method of effecting attributional change is still open to question. Weiner (1985a) maintains that a shortcoming of interventions based on his model is that they neglect to include emotions. In focusing on expectancy of success, they are consistent with the theory, but do not use the full conceptualisation of the model. He suggests, for example, that perhaps changes in emotional reactions, such as increments in self-esteem, are responsible for the increments in motivated behaviour, rather than (or in addition to) changes in expectancies.

¹⁵ Given these results, as well as the obvious links between achievement in academic and work situations, and, furthermore, the demonstrated relevance of attributions to job-related well-being and performance, it is curious that reattributional training has not been used in organisations.

In reviewing the literature on attributional interventions, Brewin (1988b) notes that, in a number of cases, the simple provision of an alternative explanation or of new information is sufficient to effect attributional change. However, he cautions that sometimes the new information may be in conflict with the pre-existing causal beliefs, and changing the person's attribution requires a more structured approach. Peterson (1982) suggests that, particularly for depressed people, three further conditions must be fulfilled: there must be good reason for the person to entertain the new belief, the new belief must be sufficiently important to change other beliefs, but it must not directly contradict them, and there must be ways in which the new belief can be used. The necessary conditions for attributional change, he claims, are fulfilled by cognitive therapy.

The majority of studies of attributional retraining have focused on changing specific attributions for particular events. However, given the central role that attributional style has been shown to play in depression, performance and other outcomes, the question needs to be asked whether an individual's particular style of making attributions can be changed. In 1981, Abramson & Alloy (1981) suggested not. They cited (a) Ickes & Layden (1978), who, with a 5-week therapy programme, were unable to modify the 'deleterious' attributional styles of their low self-esteem subjects, (b) Peterson et al (1982), who showed that the attributional styles of college students were constant over a 5-week period, and (c) Ickes (1981), who postulated that attributional styles may be resistant to change because they are an integral part of a person's self-esteem.

However, Abramson & Alloy's predictions were incorrect. Layden (1982) has since demonstrated that subjects low in self-esteem and depressed who were given an attributional training programme over four to five weeks (focusing on internal causes of success and external causes of failure in everyday situations) changed their attributional style in the predicted direction, and showed an increase in self-esteem relative to a control group. Levels of depression improved in tandem with the changes in attributional style. Sober-Ain & Kidd (1984) were also able to bring about a change in the attributional style of self-blamers using a similar methodology of examining causes for everyday events. Furthermore, it has been empirically demonstrated that cognitive therapy makes enduring changes to attributional style. This has been illustrated in two studies, Seligman et al. (1988) and Firth-Cozens & Brewin (1988), which are profiled in

chapter 3 Attribution theory and cognitive therapy share a number of similarities. Each has as its basic premise that thoughts influence feelings and behaviours. Both assume that maladaptive behaviour and emotional reactions can be modified by changing the intervening cognitions, and both emphasise the role of (naive) scientific methods used by the “person on the street” (Forsterling, 1985). Thus, it appears that a specific mechanism for attribution change may have been identified.

But Hayes & Hesketh (1989) are critical of cognitive-behavioural approaches to attributional change. Such approaches, they allege, fail to utilise the full range of attributional information to bring about change.

“A change in clients' attributions may be achieved by drawing attention to informational cues that have not been considered previously, and that are inconsistent with their current inferences, or by correcting their assessment of available covariation information” (Hayes & Hesketh, 1989, p214)

Thus, they contend that the emphasis in attributional change programmes needs to be shifted from the attribution itself, to the perception and processing of information which is antecedent to the attribution.

Forsterling (1988), in contrast, argues for the use of an integrated approach to bring about attributional change, incorporating a consideration of both attribution (S-C) and attributional (C-R) processes. He submits that *“the veridicality of a cognition is defined by its antecedents, whereas the functionality of the reaction is primarily defined by its consequences”* (p226), and, on this basis, contends that causal attributions, situations (antecedents) and reactions should be considered together in any attributional change programme. To consider only attributions and their consequences (as many attributional training programmes deriving from the RLH theory have done), he contends, may lead to problems, because the accuracy of the attribution has not been checked. For example, unwanted negative side-effects can result if a realistic attribution (e.g. internal, stable) is changed to an unrealistic one (e.g. external, variable).

Anderson (1983b) sounds two further important notes of caution. First, skill deficits must be corrected before attributional interventions are commenced. Second, attributional training pre-supposes that the problem situations or the individual's attributions can be changed. But if the failure is due to uncontrollable factors (individual

or, in the context of my research, organisational), then attempting to maintain high levels of motivation will be counterproductive, and possibly even damaging. What is needed in this situation is a recognition of the hopelessness of the situation, and a change in goals.

Forsterling and Anderson offer valid guidelines for the development of effective attributional interventions. A more integrated approach to effecting attributional change can only be beneficial, particularly in terms of placing more emphasis on the veridicality and suitability of the attributions from which the consequences flow. Cognitive therapy has an advantage over other attributional change strategies in this regard, in that it places a premium on forming *realistic* cognitions (including attributions), rather than on promoting pre-determined 'desirable' attributions such as 'effort' which might, in fact, be quite unrealistic and ultimately damaging. As such, it offers an effective mechanism on which to base an attributional change programme. This is a theme to which I will return in the next chapter.

2.5 SUMMARY AND CONCLUSIONS

This chapter has focused on attribution theory and research, including both attribution (stimulus-cognition) and attributional (cognition-response) processes. Consistent with the theory, the emphasis has been on how causal attributions are formed, how they are classified, and how they influence behaviour. Two major conclusions can be drawn from this review of the literature. First, attributional theory has evolved productively and has generated a rich array of testable research questions. With its relevance to motivation, persistence and performance, it presents a valuable framework for the current research with its focus on attributional change in workplace. Second, cognitive-behaviour therapy has been identified as a mechanism for attributional change. It has been used successfully in clinical settings, but its suitability for a workplace attributional change programme has yet to be explored. It is the aim of this research to develop an attributional training programme for the workplace, based on cognitive-behaviour therapy principles and, consistent with the occupational application, lodged within a theoretical framework of organisational training and development. An overview of the research literature pertaining to cognitive-behaviour therapy and organisational training follows in the next chapter.

SYSTEMS FOR CHANGE: COGNITIVE THERAPY AND ORGANISATIONAL TRAINING

We shall not cease from exploration

And the end of all our exploring

Will be to arrive where we started

And know the place for the first time

T S Ehot

This chapter focuses on two systems for effecting change, one in the clinical domain, and the other in the occupational sector. The first is cognitive therapy, the second is organisational training. Each approach is part of a broader change system. Cognitive therapy is one of many different forms of psychotherapy which vary in approach from assisting individuals to change their emotions and behaviour, to interventions which focus on the changing the system of which the individual is part. Cognitive therapy focuses on effecting change at the individual level, specifically on individual cognitions. It is distinctive in that it has been submitted to rigorous empirical testing and has been demonstrated to be highly effective in producing enduring therapeutic benefit in depression and other psychological conditions. It has also been identified as a mechanism for attributional change. Organisational training, similarly, is one of a number of organisational interventions designed to bring about change. The latter range from interventions which concentrate on improving the abilities and attitudes of employees to those which aim to change aspects of the organisational context such as its structure, climate, work design and reward systems. Organisational training focuses on change at the individual level. A great deal of such training takes place on the job, and is both incidental and informal¹. Planned training, in contrast, is typically structured, with each phase of the process possessing a scientific body of theory to inform it. Such training programmes have been shown to be effective in helping employees to improve

¹ Parallels can be drawn here with 'therapy' which occurs informally in the wider social context

their knowledge, skills, attitudes and behaviours, as well as in facilitating change at the job and corporate levels

It is on these two sub-systems of change - cognitive therapy and organisational training - that this chapter concentrates. Traditionally they have comprised two separate bodies of knowledge and techniques. However, in this research, they will be integrated for the development of an attributional training programme for the workplace. In the pages to follow, each system will be reviewed, and its application to attributional change will be discussed. Succeeding chapters will demonstrate how the principles and strategies from cognitive therapy and organisational training are uniquely integrated into an occupational training programme designed to bring about attributional change.

3.1 COGNITIVE THERAPY

Recognition of the importance of cognitive factors in the etiology and treatment of psychological disorders has increasingly characterised the field of clinical psychology during the last three decades. In this section of the chapter, a profile will be given of the cognitive theories of psychological disorder. Starting with a reference to Meichenbaum's and Ellis' cognitive theories, and proceeding to a full description of Beck's cognitive theory of depression, the fundamental components of the theory and its applications will be reviewed. Next, an outline of Beck's cognitive therapy will be given, encompassing the principles and key treatment strategies. Its efficacy for different psychological problems will be considered, as well as the active ingredients of change and the moderators of its effectiveness. This will lead to a discussion of the weaknesses of cognitive therapy, and how they have been addressed. The section will conclude with a consideration of the usefulness of cognitive therapy as a vehicle of attributional change, and an overview of the suitability and efficacy of group cognitive therapy for the current research project.

3.1.1 COGNITIVE THEORIES OF PSYCHOLOGICAL DISORDERS

Cognitive theories of psychological disorders have at their basis the tenet that people's cognitive appraisal of events can affect their response to those events. Failure to think in a scientific or "rational" way, it is predicted, may lead to problematic emotions and behaviour (Beck, 1976, Ellis, 1962). A second proposition of cognitive theories is that cognitions can be monitored and altered. Thirdly it is predicted that changes in emotions and behaviour can be effected through cognitive change. The primary process in cognitive psychotherapy, therefore, is the substitution of dysfunctional beliefs and faulty information processing by more adaptive cognitions and processes². Cognitive approaches have made a significant contribution to the understanding and treatment of a number of psychological disorders.

It is very clear that the cognitive psychotherapies represent one of the most active clusters of theoretical development, research activity and clinical innovations in this last decade of the century (Mahoney, 1993, p192)

One of the first systematic cognitive approaches was Meichenbaum's cognitive-behaviour modification, CBM (Meichenbaum, 1977). It posited that behaviour change can be brought about by individuals changing the instructions they give themselves, away from maladaptive and upsetting thoughts to more adaptive self-talk. His self-instructional training programme emphasises four strategies: graduated tasks, cognitive modelling, directed mediational training and self-reinforcement (Dobson & Block, 1988). The approach has been applied to a variety of psychological disorders.

Ellis' Rational-Emotive Therapy (RET) (1962) was another founding cognitive theory that has been influential in psychotherapy. The essence of this approach is the ABC model of human disturbance. It holds that people experience undesirable activating events (A), that they have rational and irrational beliefs (B) about these stimuli, which create emotional and behavioural consequences (C), either appropriate consequences from rational beliefs, or inappropriate and dysfunctional consequences from irrational beliefs (Ellis, 1993). The model espouses active disputation (D) of irrational cognitions, either by the therapist or the patients. RET assumes that individuals tend to vigorously

² It is recognised that this definition emphasises the rationalist orientation to cognitive therapy, as opposed to the more recent constructivist approach (Mahoney, 1993). It is not intended to imply that constructivist notions, such as unconscious core processes and the interaction of the self with developmental and socio-cultural systems, are not important in cognitive therapy.

preserve their irrational thought patterns (some of which are innate), thus, for significant and durable changes to occur, forceful methods of intervention are required

A third cognitive approach to the understanding and treatment of emotional disorders is the cognitive theory and cognitive therapy developed by A.T. Beck. Initially applied to depression, this approach proposes that erroneous beliefs and dysfunctional information processing are not just a symptom of depression, but play a central role in its maintenance. Beck's cognitive therapy (1970, 1976) has been subjected to careful scrutiny and rigorous empirical testing over the years. It has strong support. As a result, it is now recognised as the most important of the cognitive approaches (Hawton et al., 1989). For this reason, it will be used as the focus of this research.

Consistent with attribution theory, Beck's cognitive model of depression emphasises everyday or lay concepts of 'cognition' and meaning. However, in contrast to attribution theory, it is a clinically- rather than scientifically-derived theory, which has as its basis the premise that the emotional impact of an event is mediated through the meaning placed on the event.

The central component of Beck's cognitive model of depression consists of cognitions. These can be either verbal or pictorial, and are defined as "*stream-of-consciousness or automatic thoughts that tend to be in an individual's awareness*" (Beck, Epstein & Harrison, 1983, p2). Automatic thoughts reflect the individual's appraisal of a situation (rather than the actual objective situation), and lead directly to the person's emotional and behavioural responses. These responses will be problematic when the appraisals are distorted, which will arise when dysfunctional schemata have been activated. Schemata are "*stable, general, underlying beliefs and assumptions, which constitute a vulnerability to events*" (Beck et al., 1983, p2), and are less available to consciousness. They are laid down in childhood and later, and in many situations can helpfully guide behaviour, for example, the schema 'To be worthwhile, I must be successful' is likely to lead to motivated goal-directed behaviour (Hawton et al., 1989). However, schemata can also make individuals vulnerable to particular critical events. The model suggests a diathesis-stress interaction: "*distorted cognitions are produced when a stressful event activates an individual's unrealistic schema*" (Beck et al., 1983, p2). Thus automatic thoughts are the surface manifestation of more deeply-held schemata.

The model specifies two personality factors that influence which stressors will activate dysfunctional beliefs: sociotropy and autonomy. Sociotropy is defined as the greater valuing of “*positive interchange with others, focusing on acceptance, intimacy, support and guidance*” (Beck et al., 1983, p3). Autonomy, on the other hand, is defined as the prizing of “*independent functioning, mobility, choice, achievement and integrity of one’s domain*” (Beck et al. 1983, p3). Stressors congruent with personality (for example, failure experienced by an autonomous person, or rejection experienced by a sociotropic person) are expected to activate dysfunctional beliefs about the meaning of the stressful event, and thus precipitate depression³

Once the person is depressed, a set of cognitive distortions exert a general influence over day-to-day functioning. For example, when new information or memories are cognitively processed, the information is often distorted or biased to fit the relevant schema, which then becomes accessible through automatic thoughts. Beck (1967, 1976) has described a number of specific types of cognitive distortions:

- Dichotomous thinking - a tendency to think in absolutist, all-or-nothing terms
- Overgeneralisation - unjustified overgeneralising on the basis of a single incident
- Arbitrary inference - jumping to a conclusion when evidence is lacking or contrary to the conclusion
- Selective abstraction - some details of the situation, typically negative, are attended to⁴ or remembered, at the expense of other, more positive aspects
- Magnification (catastrophising) and minimisation - extreme negative outcomes are anticipated without substantial evidence, and positive outcomes or personal coping resources are downplayed
- Should statements - absolute imperatives are expressed about own or others’ behaviour
- Personalisation - responsibility for problems is consistently attributed to the self

These thinking errors, Beck suggests, are automatic, involuntary and highly plausible to the person. What is more, they interrelate, so that more than one may be present in an

³ There is some contention over this part of Beck’s theory, and only limited empirical support. As Teasdale points out, the content of negative thinking in depressed subjects can be quite widespread, rather than localised on the focus of specific idiosyncratic schemata (Teasdale, 1988, p256)

⁴ Recently, however, there has been evidence to suggest that attentional biases are more characteristic of anxiety than depression (Mathews, 1993)

automatic thought. They are manifest as the cognitive triad: negative view of self, current experience and the future. Other cognitive changes may maintain these views once they are elicited. The negative cognitive shift, for example, may influence information processing functions, ranging from perception, through to working memory, interpretation, recall and long-term memory (Beck, 1987). The cognitive changes result in depressed mood and behaviour. In turn, the lower mood increases the probability that further negative automatic thoughts will occur, creating a vicious cycle which tends to maintain the depression. Thus, the cognitive model does not posit a simple linear relationship between situation, thought and consequential mood and behaviour. It recognises a reciprocal effect between the elements, such that mood influences cognition, and cognition also influences behaviour which, in turn, can generate stressful situations and lead to further upsetting cognition.

Despite Beck's early emphasis on depression, his cognitive model is seen as representing a comprehensive formulation of psychopathology in general (Dobson & Block, 1988). The model has been applied to a wide range of emotional disorders, including anxiety (generalised anxiety disorder and panic), phobic disorders, obsessions and compulsions, eating disorders, drug abuse, schizophrenia and personality disorders. Beck proposes that the various emotional disorders are causally related to systematic errors of thinking. Furthermore, the cognitive distortions tend to be thematic, such that depression is related to thoughts about loss, anxiety to themes of threat or danger, obsessive-compulsive disorders to beliefs about responsibility and guilt, drug abuse to beliefs about need and permission, and so on. Central to each application is the reciprocal relation between affect and cognition.

3.1.2 COGNITIVE THERAPY

Cognitive therapy is a structured treatment programme arising from Beck's cognitive theory. It involves the application of empirical procedures to the cognitive, affective and behavioural processes of the client. The therapy is active, present-focused and psychoeducational in nature. The cognitive therapist designs specific learning experiences to teach clients to monitor automatic thoughts, recognise the connections between cognition, affect and behaviour, collect evidence and generate alternative

interpretations, substitute more realistic cognitions for distorted thoughts, identify dysfunctional beliefs that predispose the individual to distorted interpretations

Cognitive therapy is designed to be a time-limited, short-term treatment. Fifteen to twenty 50-minute sessions at weekly intervals have been shown to be sufficient for recovery from depression, with more seriously depressed patients requiring twice weekly sessions for the initial four or five weeks. A tapering off process is recommended for the end of therapy, with the last few sessions occurring once every two weeks, and "booster sessions" after termination of therapy (Sacco & Beck, 1985)

A series of cognitive therapies for different emotional disorders have been developed from the basic cognitive therapy for depression. They each have in common the therapist's assisting patients to identify, evaluate and modify their dysfunctional beliefs. Although the clinician draws upon a repertoire of cognitive-behavioural techniques, a standard set of core principles, derived from Beck's protocol for cognitive therapy (Beck & Emery, 1979), underlies the various applications. These principles are listed as follows

Principle 1: Cognitive therapy is based on the cognitive model of emotional disorders. Thoughts and attitudes - and not external events - create moods

Principle 2: Cognitive therapy is brief and time-limited

Brief therapy discourages dependency and increases client's self-sufficiency (the client becomes his/her own therapist, thus enabling therapy to continue after treatment ends). The pace of therapy is relatively brisk, little time is spent in gathering background information or searching for original causes of the problems. Therapy is task-oriented and focuses on problem-solving.

Principle 3: A sound therapeutic relationship is necessary

A number of techniques are used to establish rapport, such as acceptance of client's value system, accurate empathy, emphasis on collaborative nature of therapy, use of appropriate self-disclosure, seeking client's feedback throughout therapy, use of capsule summaries throughout therapy.

Principle 4: Therapy is a collaborative effort between therapist and client

The client and therapist work together in solving the problem, the team approach is crucial. It can be enhanced by using questions for data-gathering to bring out information, by setting an agenda at the beginning of each session, and by being problem-centred⁵

Principle 5: Cognitive therapy primarily uses the Socratic method

Rather than directly challenging the patient's thoughts and beliefs (as is common in RET), the goal of the cognitive therapist is to use questions to assist patients to uncover and challenge their own beliefs. Directive suggestions and explanations are also avoided, as they are less powerful than questions in helping the patient to realise what his/her thoughts are, look for the distortions in them, substitute more balanced cognitions and develop plans to change the thought patterns. Nevertheless, on occasions, the cognitive therapist may also act more directly as an educator and skills trainer.

Principle 6: Cognitive therapy is a structured approach

Therapy is structured by setting an agenda for each session, by helping the client to reduce problems to their common denominations, by avoidance of silence in the sessions, by focusing on task-related behaviour. The structured approach helps the patient to feel more comfortable, to learn more easily, and it establishes targets for intervention.

Principle 7: Cognitive therapy is problem-oriented

The focus in cognitive therapy is on the here-and-now, solving the problems the patient brings into therapy (in contrast to other therapies which discuss past problems). The patient is expected and encouraged to bring to therapy problems that can be worked on. A variety of problem-solving skills are learned. The rationale is that not all of the patient's problems can be solved in therapy, but the patient can learn strategies for solving future problems. Once the patient no longer has any problems, therapy is usually halted.

⁵ Much of what differentiates cognitive therapy from other cognitive-behavioural treatments such as RET or CBM lies in this collaborative interaction between therapist and patient. The client is assumed to be the expert on his or her own experience and on the meanings attached to events. The cognitive therapist does not infer this knowledge, nor why a particular thought was upsetting - he or she asks the client. For this reason, the client must take a very active role in the therapy (DeRubeis & Beck, 1988).

Principle 8: Cognitive therapy is based on an educational model

A basic premise of cognitive therapy is that people have learned inappropriate ways of thinking and acting in specific areas. The purpose of therapy is to help them to learn more adaptive ways of dealing with their stressful experiences. The patient not only learns a series of coping strategies, but learns new ways of viewing situations, and ways to gain more from experiences.

Principle 9: Cognitive therapy is based on the scientific method

This dictates that decisions are made on the basis of facts as they are known at the time. No one knows 100% about any situation, but one has tentative hypotheses that can be proved or disproved. Clients are taught to consider beliefs as hypotheses, not as proven, to pay attention to all the facts and not to arbitrarily exclude certain ones, to test hypotheses against their fit with reality, and to revise hypotheses and experiments according to new incoming data.

Principle 10: Homework is a central feature of cognitive therapy

Cognitive therapy aims to show the patient how to apply the procedures that are learned in therapy to the situations that will be met in everyday life, both now and in the future when therapy has ended. The primary way to ensure that general application takes place is by homework assignments between sessions. Homework also reinforces and supplements the therapeutic and educational aspects of the cognitive therapy.

In addition to the focus on cognitive explanations and techniques, cognitive therapists typically use a variety of behavioural methods. At times these methods are used to increase activity or to provide experiences of mastery and pleasure, however, predominantly the cognitive therapist will use them as a springboard for cognitive change. In cognitive therapy for depression, for example, treatment in the early sessions, when the patient is likely to be most depressed, may focus on the use of behavioural techniques such as activity-scheduling and graded task breakdown to assist patients to overcome their passivity and low level of functioning, and mastery and pleasure monitoring to increase rates of positive reinforcement. In addition to providing symptom relief, these techniques provide an impetus for cognitive change. As the patient's mood and level of functioning begin to improve, attention is directed more fully to the cognitive underpinnings of the depression. With judicious use of Socratic questioning by

the therapist, patients are assisted to identify their automatic thoughts. They are also taught to monitor their negative automatic thoughts through the use of a thought record - a daily log of critical situations, concomitant cognitions, and subsequent affect. Next, patients are encouraged to evaluate their beliefs as a scientist would. They learn to ask themselves whether there is enough evidence to support the validity of certain beliefs, whether an experiment needs to be conducted in order to gather necessary information, whether there are more accurate alternative hypotheses, and, if so, what information is needed to test these alternative hypotheses. Homework provides the opportunity to test out hypotheses. Through the process of observing themes across automatic thoughts, and more specifically through the use of the “downward arrow” technique⁶, the therapist and patient gradually develop some hypotheses regarding possible underlying schemata. Once such schemata have been identified, the patient is encouraged to monitor their effect, test their validity, and challenge their assumptions. The final phase of therapy is focused on the prevention of relapse. The client’s beliefs about his or her ability to leave therapy are explored, difficult situations and problems are anticipated, and time is spent revising the therapeutic concepts and skills that the client has learnt during the course of the programme, so that they may later be employed in a maintenance or preventive manner. Booster sessions may be scheduled.

The cognitive approach is typically operationalised as a structured, didactic intervention. Treatment is usually provided as a training in skills with the aim that, by the end of therapy, the client will have assimilated the basic approach as well as a set of procedures, and can function as his/her own therapist. Thus, the goal is that should problems recur in the future, the client will have the skills to tackle them, as well as to cope with day-to-day difficulties. This feature of cognitive therapy is particularly relevant for the current research project with its organisational application. So, too, is the fact that cognitive therapy is designed to be “transportable”. A treatment manual has been published so that, *“with adequate training and supervision, therapists at large can use it”* (Sacco & Beck, 1985). As a system of change, I would suggest that cognitive therapy shares many similarities (e.g. format, structure, emphasis on transfer of effect and maintenance of skills) with organisational training and development - see Section 3.3 below).

⁶ The “downward arrow” technique (Burns, 1980) is a vertical exploration technique in which the therapist assists the client to repeatedly draw out the meaning of a particular thought and its derivatives.

Efficacy of Cognitive Therapy

Cognitive therapy has been one of the most widely researched psychotherapies. Its efficacy, compared with other forms of psychotherapy and pharmacotherapy, has been demonstrated repeatedly. Four major studies have shown that cognitive therapy is as effective as pharmacotherapy in the treatment of unipolar depression (Blackburn et al. 1981, Hollon, Evans et al. 1992, Murphy et al. 1984, Rush et al. 1977), and more effective than pharmacotherapy in the prevention of relapse (Blackburn et al. 1986, Evans et al. 1992, Kovacs et al. 1981, Simons et al. 1986). The cognitive treatment of depression is now considered by many to be the preferred alternative to behavioural and biochemical interventions. Cognitive therapy has also been found to be effective in the treatment of generalised anxiety disorder. Several controlled trials have demonstrated its superiority over pharmacotherapy (e.g., Power et al. 1990) and over behaviour therapy (Butler et al. 1991) with this disorder. Cognitive therapy has been particularly effective in the treatment of panic disorder, both alone (recent studies have shown that approximately 90% of panic disorder patients are panic-free after about 3 months of treatment), and in comparison with other treatments, such as behaviour therapy, pharmacotherapy and placebo control (Clark, 1991). Furthermore, the effects have been shown to persist. The treatment of eating disorders with cognitive therapy also has been shown to be superior to other psychotherapies and medication (Fairburn et al. 1991, Agras et al. 1992).

Cognitive therapy has been applied to a number of other disorders, including substance abuse, HIV-related depression, post traumatic stress disorders, obsessive compulsive disorders, marital problems, family therapy, personality disorders and schizophrenia. In each application, the broad cognitive framework is employed (exploration and evaluation of dysfunctional beliefs and interpretations), even within other therapy formats (Beck, 1993). The results in general have been positive.

Moderators of Cognitive Therapy Effectiveness

However, not all people improve after cognitive therapy, and much research attention has been focused on identifying possible moderators of CT effectiveness, in order to

predict outcomes more accurately. Two main groups of factors are commonly considered: the therapeutic environment, and client characteristics. For consistency, the structure used by Whisman (1993) in considering these groups of factors will be adopted in the current review.

a) Therapeutic Environment

To date, there has been a lack of definitive conclusions concerning the importance of the therapeutic relationship to the effectiveness of cognitive therapy. Only a small number of studies have addressed the issue, and the results have been mixed. Robins & Hayes (1993) propose that a facilitative therapeutic environment provides the base upon which the active ingredients of cognitive therapy are able to work. In the treatment protocol, however, Beck et al. (1979) describe it as necessary but not sufficient for optimum therapeutic effect. I would suggest that recent developments in CT (in terms of a greater emphasis on the therapeutic relationship) may necessitate the formulation of a different explanation.

In contrast, the potential moderating role of two technical features of CT, therapist competence and adherence to the CT protocol, has received quite a deal of interest and attention. These features are particularly relevant for the present research study, as one of each pair of workshop leaders will be non-clinically trained, or indeed in the case of company trainers working with the researcher, non-psychologically trained. However, the results of studies exploring the relation between these two technical features of CT and therapeutic outcomes are again mixed. Whisman (1993) suggests that replication is needed before either factor can be linked definitively to cognitive therapy outcomes.

b) Client Characteristics

Few client characteristics have been shown to moderate treatment effectiveness. With the exception of marital status (married people respond better), socio-demographic variables such as age, sex and education have been found to be unrelated to CT outcome (Jarrett et al. 1991a). Further, because CT is popularly regarded as 'cerebral', requiring understanding of logical arguments and evaluation of beliefs, it is often expected that high intelligence is required for optimal outcomes. In fact, this has not been shown to be the case (Haaga et al., 1991).

On the other hand, the severity of depression and the degree of cognitive dysfunction have been predictive of outcome and relapse, more severely depressed patients with greater cognitive dysfunction have a less favourable prognosis (Sotsky et al., 1991) Whereas the presence of endogenous symptoms has not resulted in inferior outcomes, the existence of severe interpersonal disturbance, including chronic marital discord, is related to poorer outcomes (Barnett & Gotlib, 1988), as is the co-existence of personality disorders (Burns & Nolen-Hoeksema, 1992) Tentatively, therefore, it has been proposed that nonresponders to CT may have more negative thoughts to assess, may have more interpersonal difficulties, and may need more work to maintain the therapeutic relationship (Robms & Hayes, 1993)

Controversy has surrounded the potential moderating role of learned resourcefulness (coping skills to monitor, control and change unpleasant or dysfunctional internal events) Simons et al. (1985) found that people with higher learned resourcefulness (as measured by the Self Control Scale, Rosenbaum 1980) did better in CT, and those with lower scores did better in pharmacotherapy However, these results have not been replicated in all subsequent studies, and indeed one study (Hoberman et al 1988) reported the opposite effect Methodological differences may have contributed to the inconsistencies of findings Another explanation commonly cited for the inconsistent outcomes is inadequacy of sample size The only study using a large sample (Rehm et al 1987) replicated the positive results of Simons et al. Subsequently, Burns et al. (1994) proposed that the inconsistencies also may be due to interaction effects In their study, Self Control Scale scores predicted improvement only among subjects who were more severely depressed Clearly the case for or against the moderating role of learned resourcefulness is not yet closed

Finally, there is evidence that CT is most effective when patients are engaged, involved and motivated for treatment, and when there is a match between the cognitive model and clients' expectations of treatment (Marmar et al. 1989, Fennell & Teasdale, 1987)

The value of isolating prescriptive indicators, to identify patients for whom cognitive therapy is optimally suited, is clear for the clinical domain In workplace applications, to

be able to suggest which employees are likely to respond best to a cognitive intervention is also important, both in terms of maximising individual outcomes, and encouraging organisations to commit to the programme. Companies will not endorse the participation of all eligible employees in a training programme. The expectation is that selection criteria will be carefully employed to ensure that only those for whom the programme has the greatest potential benefit will participate. There is pressure, therefore, to define selection criteria accurately. The need to search for variables that differentiate clients who respond to cognitive therapy is thus particularly important for this project.

Active Ingredients of Change in Cognitive Therapy

Despite its proven efficacy, the mechanisms by which cognitive therapy operates remain unknown. A number of cognitive phenomena have been proposed as the mediators of change, including automatic thoughts and underlying assumptions (Beck, et al. 1979), views of the self, the world and the future (Blackburn & Bishop, 1983), empirical disconfirmation of negative expectancies (Hollon & Garber, 1990) and attributional style (Seligman et al., 1988).

The role of attributional style as the central mediator of change in cognitive therapy has attracted a vigorous debate. For example, Seligman (1981), in a provocative article, claimed that *"the heart of cognitive therapy is the change in attributional style"* (p139), that cognitive therapy techniques were no more than attempts to effect attributional change, and that Beck's cognitive model was reducible to, and better explained, by the reformulated attributional model of depression. Subsequently, he and his co-workers (Seligman et al., 1988) conducted a study to substantiate his claims about attributional style being the mediator of change in cognitive therapy. They compared attribution style scores with severity of depression symptoms before and after cognitive therapy, and at 12-month follow-up. They found that attributional style change correlated with change in depressive symptoms, and that change in attributional style during therapy predicted depression at one-year follow-up. They concluded that that attributional style is indeed a mechanism for change in cognitive therapy.

Further support for the hypothesis comes from a study by Firth-Cozens & Brewin (1988). In contrasting cognitive-behavioural therapy with exploratory (interpersonal) therapy in a cross-over design, they found that improvements in attributional style resulted from both therapies, but more so from cognitive-behavioural therapy (which was also marginally more effective in terms of reduction of symptoms). They concluded firstly that reattribution is an important element of therapy, secondly that attributional change is not exclusively important to depression, but may play a similar role in anxiety, and thirdly that attributional change does not wait for complete remission of symptoms, but that the two improve together: clients begin to view the causes of their life experiences as more unstable, specific and controllable as therapy progresses.

The strongest evidence for the mediational role of attributional style in cognitive therapy resides, unfortunately, in an unpublished piece of research. DeRubeis et al. (1990a) found a significantly stronger correlation between change in attributional style and depression for patients who received cognitive therapy ($r = .47$) than for those who received pharmacotherapy ($r = .04$). In reporting this study, Whisman (1993) suggests that, if attributional style was only a consequence of change in depression, then there should have been no difference between cognitive therapy and pharmacotherapy in the magnitude of the observed covariation. However, he also warns that a covariation between change in depression and change in attributional style does not prove causation. To prove that attributional change plays a causal role in recovery from depression, the former must precede the latter, and experimental manipulation of the degree of attributional change must correspond to the degree of change in depression. Another study by DeRubeis et al., this time published, provides some of the required evidence. These authors demonstrated that changes in attributional style and dysfunctional attitudes during the first six weeks of cognitive therapy significantly predicted subsequent change in depression, but that this was not the case for patients who had received pharmacotherapy. Furthermore, the reverse did not take place: early depression change did not predict later cognitive change in either treatment. Although there were no group differences at the end of treatment, CT patients fared better at follow-up, and the attributions at end of treatment predicted post-treatment relapse (DeRubeis et al. 1990b). These results provide evidence for a mediational role of attributional change in

recovery from depression, (and additionally in the prevention of relapse)⁷ Equally, there is evidence for the role of other cognitive phenomena, such as hopelessness and views of self, in recovery from depression (Rush et al. 1981) Alternatively, as Hollon, DeRubeis & Seligman (1992) suggest, attributional style may be a marker for some other causal process Clearly, the issue is not fully resolved Nonetheless, his review of the current state of the literature led Whisman to conclude

“The strongest support for cognitive mediation was found for attributional style and, to a lesser extent, dysfunctional attitudes” (p258)

The Process of Change in Cognitive Therapy

Just as the ingredient of change remains unknown in cognitive therapy, so too does the process of change Three competing models have been proposed (Hollon, Evans & DeRubeis, 1988) The *compensatory skills* model suggests that CT teaches patients cognitive and behavioural skills to help them deal with negative thoughts and emotional distress when they occur These skills include metacognitive, evidence-seeking and problem-solving skills Schema change does not take place during therapy, but later, once the patient has repeatedly practised the skills The *accommodation* model, in contrast, proposes that CT directly modifies cognitive phenomena, patients learn new beliefs that are highly specific to their particular underlying cognitive vulnerabilities Thus schema change can take place during the actual therapy (Barber & DeRubeis, 1989) Third, the *deactivation-activation* model posits that CT does not induce change in existing beliefs or processes, but leads to the deactivation of dysfunctional schemata (which nevertheless remain intact) and the activation of more benign pre-existing schemata

Support for the models is mixed Studies of cognitive therapy for anxiety tentatively support the schema change model (Persons, 1993) However, due to difficulties involved in measuring schema and compensatory skills, as yet, the models have not been tested adequately in CT for depression (Interestingly, the Attributional Style

⁷ However, as DeRubeis et al point out, the evidence is not sufficient to prove a causative role for attributional change in recovery from depression, because the relation of change in the cognitive variables to subsequent change in depressive symptoms was also found in pharmacotherapy It is, however, consistent with Teasdale’s differential activation hypothesis (Teasdale, 1988)

Questionnaire has shown the most promise for detecting cognitive change following CT for depression) Nonetheless, many researchers accept that the compensatory model best describes the primary changes induced by CT, acknowledging, at the same time, that repeated application of those skills over time is likely to result in schema change (Barber & DeRubeis, 1989)

For this and four additional reasons, the compensatory skills model of cognitive change will be adopted in this research project First, the hypothesised mediator of effect in this research is attributional change, it has been suggested that changes in attributions during CT are an index of the acquisition of compensatory skills rather than a measure of schema change (Barber & DeRubeis, 1989) Second, the compensatory skills model does not require the therapist/trainer to have any information about the client's specific cognitive vulnerability, it is sufficient to teach general strategies to address the emotional reaction that occurs when the schema has been activated This is compatible with the occupational application of this research (it has more face validity in an organisational context to teach general strategies than to conduct anything that resembles 'psychotherapy') Third, the compensatory skills model is more appropriate for group cognitive therapy, the mode of delivery that will be used in this research Whereas the schema change model requires the therapist to work individually with each client to obtain information to disconfirm his/her central beliefs, the compensatory skills model allows the skills to be taught in a group Finally, the compensatory skills model of cognitive therapy is more compatible with the model of training and development (outlined later in this chapter) with which it will be amalgamated in this research project

3.1.3 WEAKNESSES OF COGNITIVE THERAPY AND THE COGNITIVE MODEL

Unquestionably, the cognitive model offers a valuable and highly useful framework for understanding and treating psychological disorders, both clinically, and I would argue, sub-clinically in other domains as well Its emphasis on empirical validation and on the development of a scientific data base has promoted enormous progress in research and practice both within the field and in comparison with other psychotherapeutic approaches Furthermore, its strengths have been recognised by adherents of other

approaches Behaviour therapists, for example, now acknowledge the valuable role played by cognitive theory and therapy, and view it as an important complement to behaviour therapy (Wolpe, 1995) Previously separate behaviour therapy and cognitive therapy professional associations have now amalgamated, to form, for example, the European Association of Behavioural and Cognitive Therapies The impact of cognitive theory and therapy to date has been immense To quote Teasdale (1993)

“ The contributions of Beck and others who have developed cognitive approaches to understanding and treating depression are rightly regarded as one of the most significant breakthroughs this century (p339)

However, the cognitive model is not without weaknesses⁸ Teasdale, for example, lists a number of shortcomings, which he maintains stem primarily from the development of cognitive therapy in isolation from basic cognitive science I will discuss three of them, and then outline and comment on Teasdale’s alternative conceptual framework, the Interacting Cognitive Subsystems This will be followed by a discussion of what I view to be another fundamental weakness of the cognitive model, and how constructivist approaches to cognitive therapy may contribute to a resolution of the conceptual problem.

The first shortcoming of cognitive therapy noted by Teasdale (1993) is that it is not unique in reducing negative thinking in depression, other non-cognitive treatments in alleviating depression have been shown to produce a concomitant reduction in negative thinking He proposes that rather than achieving its effect by changing negative thinking, cognitive therapy achieves it by some other mechanism which is common to other treatment approaches He proposes that the changes in negative thinking may be a *consequence* of the depression, rather than antecedent to it Many authors would agree (e.g. Simons et al, 1984) Others might argue that cognitive variables are mediators of change in cognitive therapy, but the consequence of change in other treatments for depression (e.g. DeRubeis, et al, 1990b) Alternatively, it could be argued that the modes of action of different treatments produce changes in patients that are identical at the end of treatment, but the existence of differential relapse rates suggests that

⁸ Much of the critical appraisal of cognitive theory and therapy has come from within the discipline This ability to self-criticise, I would suggest, is another of its strengths

variations between treatment approaches must be present at the end of treatment, even if not easily discerned (Barber & DeRubeis, 1989). In fact, the commonly-held compensatory skills model of cognitive change suggests that CT-treated depressives may continue to generate negative thoughts as primary appraisals, but what distinguishes CT from other treatments is that patients acquire a set of skills they can use to rebut or reconsider these appraisals, which will lead to more benign or positive final appraisals. This also provides an explanation for the existence of differential relapse among treatments. As Clark et al (1991) concluded from their comparison of CT, exposure therapy and pharmacotherapy for panic disorders, cognitive change may mediate the clinical effectiveness of all three treatments. But, although the cognitive changes appear similar at post-treatment, they may be the result of different processes, and may differ in their stability after treatment is terminated.

Teasdale's second criticism is that there has been an absence of evidence supporting the enduring existence of the underlying dysfunctional assumptions and attitudes, which act as the vulnerability to depression. They seem to be mood-dependent, he suggests, disappearing once the depression has remitted. This, too, is true (see, for example, the review of studies by Haaga, Dyck & Ernst, 1991). Furthermore, studies have suggested that the changes in dysfunctional attitudes are not specific to cognitive therapy (Simons et al., 1984, Hamilton & Abramson, 1983). However, it should be noted that there has been some dissatisfaction with the measure most commonly used for assessing cognitive schemata, the Dysfunctional Attitude Scale (DAS). As Segal (1988) has argued, the self-report format of the DAS may make it a poor measure for assessing cognitive schemata, as it is difficult to ascertain whether a subject's responses reflect spontaneous beliefs or a re-assessment of those beliefs. Other researchers feel that the DAS is too mood-dependent to be a valid schema measure. The Attributional Style Questionnaire is felt to have greater potential as an index of underlying schemata (Barber & DeRubeis, 1989). Nevertheless, it must be pointed out that results of studies using the Attributional Style Questionnaire are mixed, some indicate the possibility of a specific and enduring effect of CT on cognitive schemata, not shared by other treatments (DeRubeis et al., 1992, Eaves & Rush, 1984), whilst others (e.g. Hamilton & Abramson, 1983) have found that scores on the ASQ improve as depression symptoms remit. Teasdale & Dent (1987) suggest that the conflicting results may be a function of the use of generalised

questionnaires administered in non-threatening situations, whereas cognitive theory proposes that depressogenic schemata are relatively specific to particular individuals and are typically activated in situations similar to those in which the schemata were originally developed. Accordingly, they used self-description and incidental recall during induced depressed mood to test whether cognitive vulnerability to depression is an enduring predisposition (related to neuroticism, N), or a latent characteristic only evident when activated by depressed mood. The methodology worked well: both hypotheses were supported, from which the authors concluded that cognitive vulnerability to depression is an enduring characteristic of high N people, and a transient effect of depressed mood.

A third shortcoming of cognitive therapy cited by Teasdale is that clients can experience emotional reactions without being able to access the negative automatic thoughts that, according to the model, mediate the emotional reaction. In addition, he notes that the cornerstone to changing dysfunctional thoughts in cognitive therapy, 'rational' argument or 'corrective' information, is frequently ineffective in effecting emotional change, even when the client acknowledges 'intellectually' the logical power of the evidence. Concerning the latter point, the compensatory skills model of cognitive change would suggest that the emotional change comes only later, once schema change has occurred through repeated practice of compensatory skills.

Although responses can be attempted for each of the shortcomings of the cognitive model listed by Teasdale, they are, at best, only partial explanations. Teasdale creates a sound and convincing argument. Furthermore, he offers an alternative conceptual framework, rooted in experimental cognitive psychology and cognitive science, which he maintains overcomes one of the problems besetting current cognitive approaches to depression, namely the paucity of application of experimentally- rather than clinically-derived theory to practice.

The Interacting Cognitive Subsystems (ICS) framework, (Barnard & Teasdale 1991, Teasdale & Barnard, 1993) posits the existence of nine qualitatively distinct types of information, or mental codes, each representing a different aspect of experience and possessing its own information processing system and memory store. The mental codes can be grouped into two levels of meaning.

- 1 Patterns of Propositional code or specific level meanings, which consist of discrete constructs and the relationships between them, and can be communicated effectively through language
- 2 Patterns of Implicational code, or holistic level meanings, which are highly abstract and thematic, do not map directly on to language, and are of primary importance in the production of emotions. They are experienced as 'senses', 'feelings' or 'intuition' with implicit rather than explicit meaning content

The 'hot' processing of emotion-related material in the Implicational Code is contrasted by Teasdale with the 'cold' consideration of emotion-related material (intellectual belief or 'knowing with the head') of Propositional representations. Teasdale maintains that the clinical cognitive model deals with Propositional representations only, which can be tested against reality⁹. He claims that a weakness of this model is that it fails to recognise qualitatively different levels of meaning, denying the existence of emotional beliefs, and labelling them as just quantitative variations in intellectual beliefs. Yet, my understanding of Beck's model is that deeply-held beliefs or schemata are qualitatively different from automatic thoughts. However, I take Teasdale's point about the general lack of recognition of the qualitatively-distinct emotional beliefs in the cognitive model.

The ICS framework suggests that depression is maintained by the reactivation of depression-related Implicational schematic models

"These models emit biased lower level meanings in the form of negative evaluations, attributions, instructions to access negative material in memory etc. The bias in these specific meanings leads to negative depressive thinking (Teasdale, 1993, p347)

Thus, the antecedents to depressed emotion are not negative thoughts or images as the clinical cognitive model suggests, but the reinstatement of depressogenic higher level meanings which were established in previous depressing situations and stored in Implicational schematic models. These patterns of information processing become activated once the person is in a mildly depressed mood. However, reactivation can be

⁹ Teasdale's view is consistent with recent constructivist orientations in psychotherapy. Whereas traditional cognitive therapies are founded on the principles of logical positivism, whereby a well-adjusted human being is viewed as a rational decision-maker able to avoid illogical inferences and to objectively test hypotheses against publicly observable outcomes, constructivist philosophies view human beings as meaning-making agents (Neimeyer, 1993). Reality and belief systems are assumed to be socially constituted rather than given, and hence can vary enormously.

prevented by creating and storing alternative non-depressive schematic models which are accessible by the same depressogenic cues. The central goal of therapy, Teasdale therefore suggests, is to replace depressogenic Implicational code patterns with more adaptive schematic models. Just as Implicational schematic models are composed of elements related to lower order specific meanings, as well as elements derived from sensory inputs, such as voice tone, facial expression, posture and bodily arousal, so therapy can focus on changing specific meanings in order to alter higher level meaning, or it can aim to modify sensory elements to achieve the higher level change. Thus, in addition to the identification and disputation of invalid beliefs, the ICS model recommends a variety of interventions, including guided imagery, physical exercise, manipulation of facial expression, music and muscle relaxation in order to introduce new elements into existing Implicational patterns, or to create new higher order meanings. By substituting adaptive schematic models focusing on coping or 'taking control', it is suggested, clients are assisted to free themselves from the domination of dysfunctional childhood semantic models (Teasdale, 1993).

Teasdale & Barnard's theory is compelling. One of its strengths is that it brings together seemingly diverse approaches to the treatment of depression, and offers a unified, coherent theoretical framework with information-processing as its core. Conceptually, I would suggest that ICS shares some similarities with other cognitive models such as schema-focused approaches to cognitive therapy (Persons, 1989, Young 1990). Similarities could also be drawn with Wells' (1981) notion of socialised attributional processing, although the latter is more language-based. However, methodologically, the emphasis in the ICS model on empirically-supported scientific theory is an advantage not shared by other conceptualisations. As such, it facilitates the testing and validation (or falsification) of the various elements of the model.

However, in acknowledging the strengths of the ICS framework, particularly the way in which it addresses the shortcomings of existing cognitive models, let's not throw the baby out with the bathwater. Cognitive therapy is a highly effective intervention for depression. Furthermore, it has been applied successfully to a range of other psychological problems, and soon even to the workplace. Further applications of the cognitive model (which Teasdale dismisses as 'more of the same') can, I believe,

increase the precision of the concepts, and facilitate self-correction within the theory, as long as the studies are scientifically-controlled and theoretically-driven. The challenge is to encourage practitioners to adhere closely to the theoretical model, and to take cognisance of the outcomes of well-controlled research. That is not to say that the theory and techniques should not evolve, with the weaker parts replaced. But let's hold on to the parts that have a demonstrated efficacy. Actually, I suspect Teasdale might agree on this point - his Attentional Control Training (Teasdale, Segal & Williams, 1995), a relapse prevention programme for depression, integrates elements of 'mindfulness meditation' (Kabat-Zinn, 1992) with traditional elements of cognitive therapy.

Constructivist approaches to cognitive therapy provide another example of the evolution of cognitive therapy. These theories view reality as socially constituted, rather than objectively verifiable "truth". They call into question the equation of mental health with the accuracy, rationality or positivity of cognitions, and the corollary assumption that any beliefs that fail to correspond to objective reality are, by definition, dysfunctional (Neimeyer, 1993). As such, they address what I perceive to be a major weakness of the cognitive theory of emotional disturbance *viz.*, its apparent incompatibility with a substantial amount of research in cognitive and social psychology which indicates that inaccurate and self-serving cognitions are widespread in human thought, and, what is more, functional. The work of Taylor & Brown (1988) on cognitive "illusions" is a case in point. These authors provide evidence that people make pervasive, enduring and systematic cognitive distortions (illusions) about (1) themselves, (2) their experiences and (3) their future, which are adaptive for mental health and well-being (Note that these also constitute the three dimensions of the cognitive triad, hypothesised by Beck et al.(1979) to provide the substance of depressogenic thinking.) Taylor & Brown claim, on the basis of extensively reviewed research evidence, that overly positive self-evaluations, exaggerated perceptions of control and mastery, and unrealistic optimism about the future are hallmarks of normal human thought, particularly under circumstance of adversity, and, what is more, they are mentally healthy. Moreover, such cognitive illusions promote other attributes of mental health, including the ability to care for others, the ability to be contented and happy, and the ability to engage in productive and creative work. Studies in the area of attributional

biases, outlined in Chapter 2, provide further support for the hypothesis that accurate self-knowledge and veridical perceptions of reality may not be the *sine qua non* of mental health. Other research questions the view in cognitive therapy that *negative* thinking is dysfunctional. Work by Schwartz (1992) and Schwartz & Michelson (1987) suggests that negative thinking need not be negative in its consequences, and that a balance of negative to positive thinking can facilitate coping.

New forms of cognitive therapy have begun to evolve as an outgrowth of these findings and the constructivist theories. Rather than holding the “person as scientist” tenet, they maintain that the viability of any cognition (or mental “construction”) is a function of its consequences for the individual or group that adopts it, as well as of its compatibility with the larger system of socially-held beliefs of which it forms a part (Nemeyer & Harter, 1988)¹⁰. The personal meanings of client’s thoughts are stressed, and emotion is viewed as informative, reflecting the adequacy of clients’ attempts to construct meaning out of their experiences (McCoy, 1981). Even irrational beliefs are seen as functional in many circumstances. Thus, rather than eliminating or modifying cognitive distortions, the goal of therapy is to foster the broader development of the client’s constructions. One might conclude from these developments that a coherence is evolving in cognitive therapy which incorporates the traditional theoretical framework of the cognitive therapy, as well recent empirical findings about the nature of healthy or functional thinking, and lodges them within a broader system of constructivism.

3.1.4 APPLYING COGNITIVE THERAPY STRATEGIES TO GENERATE ATTRIBUTIONAL CHANGE

The central aim of this research project is to develop an attributional change programme for the workplace. In the previous chapter, a number of attributional interventions were examined, and it was suggested that cognitive therapy may be a suitable vehicle for an effective attributional change programme. Cognitive therapy offers an integrated approach to effecting attributional change. Unlike other attributional interventions, it consists of more than proposing alternative explanations, or providing new information

¹⁰ It is interesting to note that a similar questioning of the “person as scientist” metaphor has taken place in social psychology, particularly in regard to the theories of causal attribution (see previous chapter)

in the hope that a change in attributions will follow. Reattributional techniques are expressly taught in cognitive therapy, particularly when patients unrealistically attribute adverse occurrences to personal deficiency. The techniques include teaching patients to question whether they are 100% responsible for the negative consequences, to make attributions for hypothetical others in the same situation (the third person technique) and to assess the reasonableness of their automatic thoughts by measuring them against experiential evidence (experiments are designed for this purpose).

But Peterson (1982) warns that attributions are not always responsive to contrary evidence. He maintains that three further conditions must be fulfilled to change a belief: there must be good reason for the person to entertain the new belief, the new belief must be sufficiently important to change other beliefs, but it should not directly contradict them or it will not be accepted, and thirdly, there must be ways in which the new belief can be used, thus binding it to the rest of what guides action. He claims that Beck's cognitive therapy satisfies all three conditions.

1. By stressing the importance of the therapist-client interaction, cognitive therapy creates the affective relationship necessary for resocialisation. Once the client is listening to and trusts the therapist, cognitive therapy can provide a belief not likely to have been entertained by the person prior to therapy.
2. In cognitive therapy, the attributional beliefs of the client are not so much challenged, as are the 'operationalisations' arising from them. Thus the person is encouraged to define the behaviours constituting a particular disposition. Such operationalisations are unlikely to be held so tightly as the dispositional conclusions arising from them.
3. Cognitive therapy is very concrete. Discussion of thoughts and behaviours are always at the level of specifics, and patients are encouraged to evaluate their beliefs in concrete actions in concrete situations.

Peterson concludes

"Cognitive therapy works because it weaves new strands into the web of belief in which depressive attributions are located, thereby changing the entire fabric" (Peterson, 1982, p110)

The RLH theory also postulates a central role for cognitive therapy in bringing about attributional change. According to Seligman, two of the four strategies that derive from the theory, Resignation Training and Attribution Retraining (see previous chapter), are

included in cognitive therapy (Seligman, 1981). In fact, he claims that "*cognitive therapy and rational emotive therapy boil down to a variety of tactics of attributional retraining and resignation training*" (Seligman, 1981, p129). Further, Seligman claims that cognitive therapy alleviates depression specifically by bringing about attributional change (Seligman et al. 1988). This brings us back to the issue discussed earlier of the mediational role of attributional change in cognitive therapy.

In addition to the explicit use of reattributional techniques in cognitive therapy, Forsterling (1980, 1986) submits that other attributional change techniques are used implicitly in the practice of cognitive therapy. He suggests that Ellis' use of "Socratic dialogue" to dispute clients' irrational beliefs, and Beck's method of "hypothesis testing" implicitly use consistency, consensus, and distinctiveness information to restructure the patients' attributions. However, he advocates a more explicit use of attributional antecedents, in particular Kelley's (1967, 1973) covariation model, within cognitive therapy. Hayes & Hesketh (1989) agree. They draw attention to the findings of attribution studies which indicate that when individuals are provided with full consensus, distinctiveness and consistency information, they are capable of drawing logical inferences that are consistent with the principles of covariation (e.g. Hesketh, 1984). An added value of the covariation model, they maintain, is that it shifts the emphasis from the attribution to the perception and processing of the antecedent information. In this way, it differs from interventions informed by other attributional models, such as those by Abramson et al. (1978), and Weiner (1985a), which place the primary focus for attributional change on the attribution itself. Forsterling goes further to suggest that the systematic checking of consensus, consistency and distinctiveness information would not only help clients to change their existing maladaptive causal attributions to more realistic ones, but would also provide them with a tool to master future psychological problems. He provides an example of how Kelley's model can be integrated with cognitive-behavioural strategies to effect attributional change (Figure 3.1).

These recommendations for the explicit use of covariation information in cognitive therapy have appeal. Great importance is placed in cognitive therapy on evidence-gathering to evaluate and modify thoughts, and Kelley's model provides a structured

way of doing this, either by the therapist through Socratic questioning, or by the client for him- or herself To quote Kelley

“Realistic attributions result from the rational processing of antecedent covariation information about consensus, distinctiveness and consistency”
(Kelley, 1967, p195)

Table 3 1 Schematic Use of Kelley’s Informational Sources for Attributional Change
(Forsterling, 1980)

Attributional Problem	Informational Dimensions		
	Consistency	Consensus	Covariation
The client believes that he cannot stop smoking <i>(internal stable)</i> Goal Lack of effort attribution <i>(internal unstable)</i>	Was it too hard not to smoke in the past?	Were others able to stop?	Could he stop for a million dollars?
The client believes that he has to be lucky to find a job <i>(external unstable)</i> Goal Anticipation that effort is the crucial determinant of success <i>(internal unstable)</i>	How many jobs has he found in the past because of luck?	What preceded other people’s success on the job market?	Would he find any jobs while he was deliberately not trying at all?
The client believes that his spouse makes him angry <i>(external stable)</i> Goal The belief that his own thinking makes him angry <i>(internal unstable)</i>	Did the respective behaviour of the spouse always (and everywhere) produce angry feelings in him	Would everybody get angry at this behaviour?	Does he get specifically angry when thinking certain things?

In summary, attributional change is an explicit goal in Beck’s cognitive therapy for depression, and several studies have demonstrated its effectiveness in this regard. Other writers note the implicit use in cognitive therapy of antecedent information to effect attributional change and recommend a fuller use of this technique. Explicitly or implicitly, the conclusion appears to be that cognitive therapy plays an important role in effecting attributional change. As such, it offers an effective framework on which to build an organisational attributional intervention. Furthermore, consistent with the group format commonly used in organisational training programmes, the attributional intervention will be based on a structure of group cognitive therapy. The next section is

devoted to a consideration of the essential features of group cognitive therapy, together with its strengths and weaknesses

3.1.5 GROUP COGNITIVE THERAPY

In contrast to individual cognitive therapy, group cognitive therapy is typically closed-ended (all group members start and finish at the same time), time-limited, and of a predetermined length (15 to 20 sessions). Similar to individual therapy, however, group sessions are predominantly structured, problem-oriented and focused. Furthermore, the therapists are active, questioning, challenging and exploring as well as educating. Little emphasis is placed on understanding the interaction between patient and therapist, or on understanding the interaction among members. Traditional group therapy topics such as cohesion, affectivity, dominance and alliance do not feature, and instead, attention is focused on the problems of the group members. Usually the therapy is led by two therapists. Whilst one is conducting the session (establishing the agenda, directing the discussion, teaching a strategy, summarising the session), the other is monitoring the group members, reviewing their homework, introducing particular issues into the discussion, and helping to clarify difficult issues (e.g. Covi et al. 1982).

Group psychotherapy has a number of obvious advantages. Firstly it is more cost-effective than one-to-one interventions since a number of individuals can receive the intervention at the same time. Secondly the group sessions allow opportunities for participants to practice and role play new skills and behaviours. Thirdly, in simultaneously addressing the situations of different individuals, the group approach demonstrates the application of skills to many similar but nonetheless unique situations, thereby aiding the future generalisation of acquired skills to different situations (Lewinson & Clarke, 1984). In addition, the group format provides opportunities for observational learning, modelling, social reinforcement, and what might be loosely be called "moral support" (Ormrod, 1995).

From a cognitive perspective, the group situation offers additional advantages. It provides opportunities for demonstrating the relationship between thinking and feelings or behaviours, as well as an immediate context for identifying, systematically examining

and correcting dysfunctional inferences Beck's cognitive therapy protocol, in describing group cognitive therapy, states

"As in individual cognitive therapy, the cognitions that are revealed during the session are often the ones which provide the most compelling demonstrations of both the crucial role of idiosyncratic thinking and the potency of therapeutic techniques in attenuating such dysfunctional thoughts" (Hollon & Shaw, 1979, p333)

Groups provide a natural context for examining multiple perspectives, a process which reinforces the tenets of cognitive therapy (Covi et al. 1982) Group members are able to identify, examine and test thoughts and assumptions in a less threatening situation than if they were focusing on their own cognitions, but in doing so, they increase their skills in assessing and correcting their own Thus, groups provide a powerful learning model They also provide a ready opportunity for individuals to conduct behavioural or cognitive experiments, such as testing an unhelpful belief, particularly if it pertains to interpersonal issues

Importantly for attributional change interventions, groups are also a valuable source of consensus and other covariation information, allowing clients to compare their situation with that of others in the group Consistently, group participants rate 'talking to people with similar problems' as one of the most helpful aspects of the group (Eayrs et al 1984) Group formats are therefore well suited for attributional interventions as they allow the participants to check the validity of their causal ascriptions

In addition to suitability, however, questions of efficacy must also be considered Published evaluations of anxiety management groups testify to their effectiveness (Barlow et al 1984, White & Keenan, 1992, Telch et al., 1993) Group cognitive therapy has also been shown produce clinically significant improvements in the treatment of mild, moderate and severe depression (Scott & Stradling, 1990, Wierzbicki & Bartlett, 1987, Bristow & Bright, 1995) In comparison with individual cognitive therapy, it has been shown to be equally as effective, both at end of treatment and at 12 month follow-up (Ross & Scott, 1985) Shaffer et al. (1982) and Shapiro et al. (1982) demonstrated that clinically significant treatment effects persisted for 12 months for both individual and group cognitive therapy for anxiety and depression, but not for traditional group therapy

Other researchers have compared the outcomes of individual and group applications for specific cognitive-behavioural techniques. In a meta-analysis of 69 studies employing the cognitive technique of self-statement modification, Dush et al. (1983) found that group therapy produced just over half the effect of individual therapy. This contrasts with Miller & Berman's finding that both modalities were comparable in a study evaluating cognitive restructuring (Miller & Berman, 1983).

Clearly, group cognitive therapy is effective and beneficial, although whether the effect is as large as that resulting from individual therapy requires clarification. Nevertheless, it enjoys a number of important advantages which add to its appeal, and one could argue, to its cost-effectiveness per increment of therapeutic gain produced. As a vehicle for work-place attributional change, group cognitive therapy seems eminently suitable.

3.1.6 COGNITIVE THERAPY: SUMMARY AND CONCLUSIONS

This chapter concerns systems of change. The first section has profiled a therapeutic agent of change, cognitive therapy. Cognitive therapy is based on the cognitive model of depression, which has been extensively tested and its postulates confirmed in a number of studies. The precision of the theory has allowed the development of a structured and clearly articulated system of therapy. Various versions of the therapeutic system have been developed for different presenting problems, but they are unified by a common set of principles and the underlying cognitive model. Clinical outcome studies indicate that cognitive therapy is a powerful agent of change. Recent theoretical developments have addressed shortcomings in the original model, and indicate new therapeutic approaches. Cognitive theory and therapy were described in this section as a prelude to the development of an organisational attributional retraining programme, incorporating both cognitive therapy and organisational training principles. It is to the second system of change, organisational training and development, that we now turn.

3.2 ORGANISATIONAL TRAINING AND DEVELOPMENT

Like cognitive therapy, organisational training and development is a system for creating change. However, unlike cognitive therapy, the aim of the change process is both to promote individual learning (and thereby attitude and behaviour change), as well as to increase the effectiveness of the organisation. Over the last ten years, a scientific body of theory has developed to inform each phase of the training process, and well-designed research is being conducted to test the various theoretical models. The field has spawned an enormous literature. This section of the chapter presents a selected review of it, with the aim of providing a theoretical and empirical basis for the attributional intervention to follow.

The section will begin with a consideration of training models. Two contrasting perspectives will be described, with the aim of deriving a training model which is relevant for the current research project. Next, the components of the training process will be examined, starting with training needs analysis and the formulation of training goals, progressing to training design and delivery involving principles of learning, instruction and motivation. Here, in line with the cognitive emphasis of the research, recent developments in cognitive psychology and instructional theory will be highlighted. This will lead into an appraisal of training procedures (including training methods, both on- and off-the-job), the role of the trainer, trainee characteristics, and transfer of training issues. The subject of training evaluation will next be examined, and the section will conclude with a consideration of attributional change within the context of organisational training and development.

3.2.1 DEFINITION AND MODELS OF TRAINING

Two contrasting perspectives have evolved over the years in organisational training and development. One has focused on the development of the attitudes-knowledge-skills-

behaviours required by an employee in order to adequately perform a task or job (e.g. Department of Employment, 1971), the other views the purpose of training as being to foster organisational effectiveness, with training needs linked to corporate strategy (e.g. Hussey, 1985). The two approaches have led to the adoption of two different models of training (Bramley, 1991)

- **The Individual Training Model** focuses on planned learning activities for individual members of the organisation. Training needs are tailored to the individual, who, once the training is completed, returns to the workplace and applies the learning. The assumption is that employees are motivated to improve their performance, which in turn will improve the effectiveness of the organisation. The model is appealing in that, similar to cognitive therapy, it focuses on change at the individual level. Furthermore, it has been shown to be well-suited for training that transfers easily to the job. However, it has not been found to be as satisfactory where the work situation does not closely resemble that simulated in training, such as managerial and supervisory training (Bramley, 1993). A further weakness of the model is that it ignores the existence of organisational structures, cultures, policies and priorities which shape the behaviour of members of the organisation.
- **The Increased Effectiveness Model** of training, by comparison, concentrates on changing organisational effectiveness rather than educating individuals. It is based on the assumption that the variables determining organisational effectiveness are located in the environment, which control the behaviour of employees. Thus, the process of improving organisational effectiveness involves a number of stages. First there is an evaluation of the improvements in organisational effectiveness desired, and criteria are established by which the improvements will be measured. Then the resources needed to bring about the goals are considered, this will include a perusal of the job situation, which may pinpoint aspects that need to be changed. If training is deemed necessary, it is delivered, but its effectiveness is evaluated in organisational terms, rather than according to individual criteria. Recent thinking about the 'learning organisation' (Pedler et al., 1991) is compatible with this model. It starts from the premise that learning is the key to competitiveness and to the achievement of organisational strategy. According to this approach, training strategy is derived from business

strategy, and only makes sense in those terms. However, despite governmental endorsement in Britain, in practice, the implementation of a continuous learning strategy in organisations has not been found to be easy. Its success is dependent on a complex interplay of organisational and individual factors, including the work environment, job design, support and rewards for learning and the company's core assumptions and practices concerning its human resources (Kaufman, 1975, Kozlowski & Hults, 1987), as well as on the motivation, career orientation and cognitive ability of employees (Noe & Ford, 1992).

Clearly, there are benefits involved in both training models. If we are to focus on change at the individual level, as the current research project does, then the Individual Training Model is important with its emphasis on what can be achieved in the training process to help employees develop cognitive strategies to learn, retain and perform more effectively in their jobs. On the other hand, organisational variables will affect these processes, and these too must be recognised in a model of training. The bottom-line for many organisations is performance. As Mumford (1995) states

“The prime purpose of management development is effective managerial behaviour, it is not just knowledge, or attitudes, although these can often be significant contributors to effective behaviour” (p5)

An effective model of training, therefore, requires consideration of the processes by which knowledge and attitudes are transformed into behaviour and performance. The Individual Model of Training is inadequate in this regard, as, with its focus on learning, it ignores key aspects of the organisational context may prevent the learning from being translated into effective behaviour on the job. Thus, for the purposes of this research, I propose a combination of the two training models. The basic orientation of the Individual Training Model, with its springboard for change originating within the individual employee, provides the structure for the model, to which is added, consistent with the Increased Effectiveness Model, a consideration of the organisational factors which affect the translation of learning into motivated and effective work behaviour. According to Bramley (1995), the latter factors require an analysis of what behaviours are effective in a particular job and organisational context, as well as the incorporation of work-based activities into the design of the training programme. These factors will be included in the training model to form an integrated training strategy. It is to the topic of training strategy that we turn next.

3.2.2 ORGANISATIONAL TRAINING AND DEVELOPMENT STRATEGY

Since the mid-1980s, there has been a shift in emphasis from a view of training and development as a formal, planned process to one that includes incidental and informal learning as well. As Mumford (1991) notes of management development

“ in the mid-1980s I was still defining management development as ‘an attempt to improve managerial effectiveness through a planned and deliberate learning process’ I have now come to the view that a great deal of management development is not ‘planned and deliberate’, and probably never can be Management development must be considered to include informal and accidental processes, as well as those defined as planned and deliberate ” (p3)

Mumford proposes a typology of developmental activities consisting of informal, unplanned, accidental learning processes (Type 1), formal, planned, deliberate development practices (Type 3), and, in the middle ground, project-driven action learning (Type 2)¹ Learning, he suggests, is likely to be more appropriate and successful if attention is given to what effective action is needed by job incumbents, rather than what knowledge is required Knowledge-based learning requires the learner to interpret and apply that knowledge in subsequent action, which, due to a number of individual and organisational factors, may not always take place effectively Alternatively, training which concentrates on the activities associated with effective performance, both behavioural and, I would suggest, cognitive too, is likely to be more successful. It is on the latter that the attributional training programme consciously focuses

Most training and development in organisations takes place on the job Furthermore, the majority it is informal and incidental (Marsick & Watkins, 1990, estimate that only 17% of learning in organisations is formal, and that the remainder is informal and incidental) Even if incidental and informal, however, the learning can be planned Providing information, giving feedback, coaching, mentoring, job rotation and the socialisation of new employees are all forms of on-the job training commonly used in organisations The advantages of employees learning on the job are firstly that the training function can be fulfilled by different people - bosses, colleagues, subordinates, or even employees themselves as in the cases of self-directed learning and incidental learning from

¹ In action learning, participants work on solving real problems being faced by real organisations (usually their own), which enables the learning to be practical and immediately relevant The emphasis is on understanding the learning processes involved in undertaking the project

experience - and secondly, that the problems of transfer of learning are minimised (because the learning takes place in the same physical and social environment in which the skills and knowledge will be used) A third advantage is that training costs can be defrayed to an extent, as employees are contributing to the organisation while they are working However, there are also limitations to on-the-job training often it takes second priority to more pressing tasks, and co-workers or managers acting as trainers sometimes do not have the motivation or the capability to provide trainees with worthwhile learning experiences (see Wexley & Latham, 1991)

Off-site training approaches also have advantages and disadvantages The obvious disadvantage concerns the transfer of training to the job The advantages are that they allow employees to acquire skills and knowledge away from the day-to-day pressures of the job, and furthermore, that outside resource people, who are trained trainers, can be used (Wexley & Latham, 1991) A third major advantage is that off-site training programmes are typically planned and structured, and therefore are able to make full use of the body of knowledge that is available to inform each stage of the training process

The attributional change programme, the subject of this research, is an off-site training programme, based on the above-mentioned infrastructure of training theory and research, with special attention to transfer of training It aims to integrate the principles of cognitive therapy with a sound organisational training and development strategy The latter involves several important components

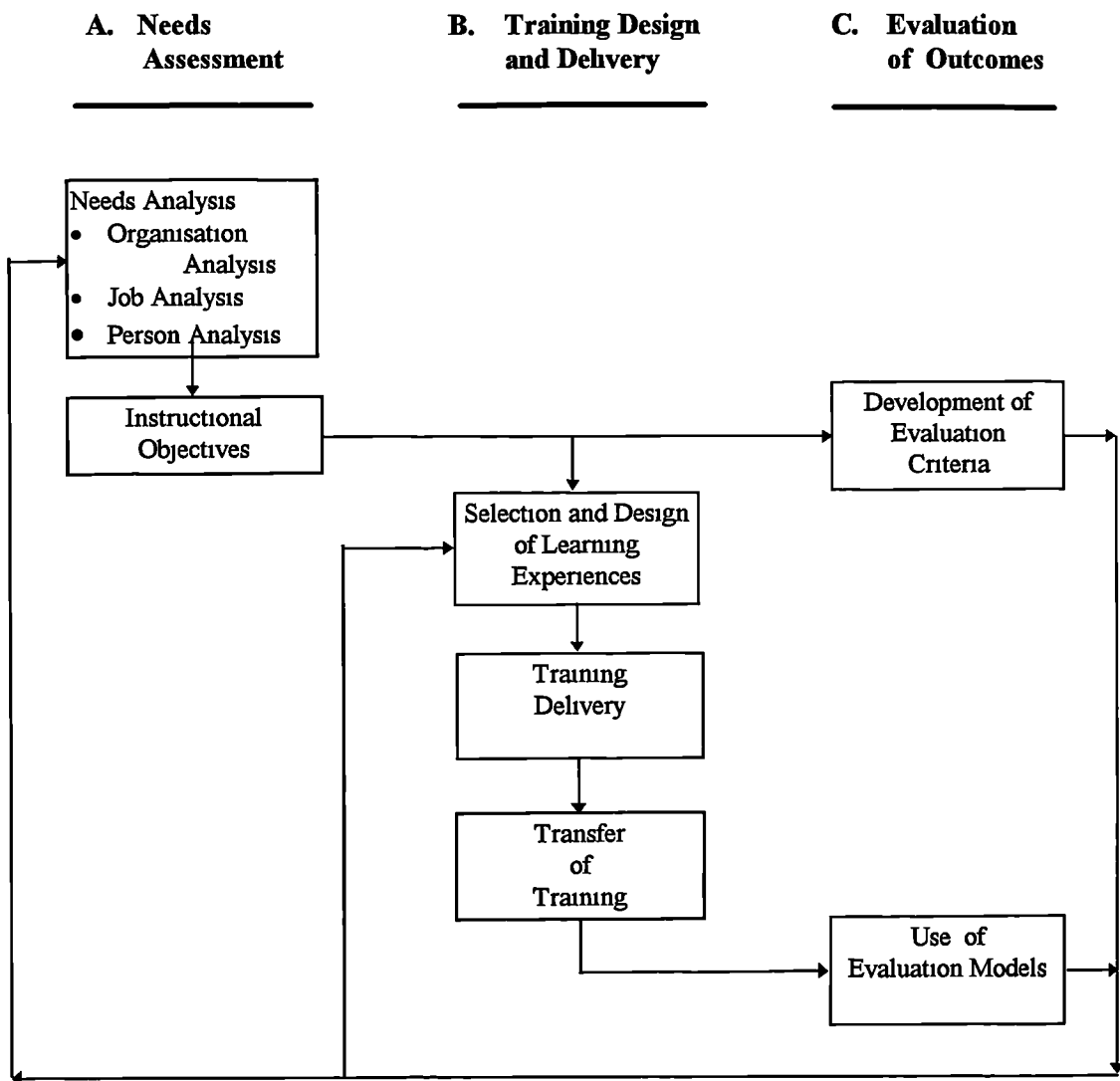
- careful needs assessment
- precise development and implementation of learning experiences to achieve instructional objectives
- the formal evaluation of training and development outcomes

These components are often depicted as a training system. This allows training to be analysed in two ways (Patrick, 1992)

- (a) it can be studied as a system which interacts with other systems in the organisation, such as personnel selection and ergonomics
- (b) the training system itself can be analysed according to its subsystems and their interaction

The training system model proposed by Goldstem & Gilham (1990) was modified for this research (Figure 3 1) The model was chosen because of its ability to explain both on-the-job and off-the-job training (many system models are relevant only to formal off-the-job training programmes), and the adaptations made were in line with the emphases of this research project The system acts as a closed loop, in which the training goals guide the design of the training programme and determine the criteria for its evaluation, the outcomes of the evaluation process lead to examination, and, if necessary, modification, of the instructional objectives and of the programme Each section of the system will be examined in turn in the sections to follow

Figure 3 1 Training Systems Model (Adapted from Goldstem & Gilham, 1990)



(A) Needs Assessment

Training Needs Analysis

The systematic identification of training needs and the specification of training objectives is the first step of the training cycle. It provides the information necessary for the subsequent design, learning and evaluation phases. McGehee & Thayer's (1961) conceptual model is still most influential here. It suggests that training needs should be analysed on three levels: the organisation, the job and the person.

1) Analysis of training needs at the **organisational level** primarily concerns ways to increase effectiveness, and typically focuses on factors such as the corporate goals and strategic plans, the resources of the organisation including the current skill pool, indices of effectiveness, internal constraints such as supervisor attitudes which might make it difficult for the job to be performed as trained, and external constraints, such as national legislation to do with health and safety at work or equal employment opportunities. Of course, once the organisational analysis has been conducted, it may become obvious that a training intervention is not warranted, and the need may be better addressed by alternative organisational changes such as modifications to the selection system, or redesign of the work environment²

2) Analysis at the **job level** traditionally involves ascertaining what knowledge, attitudes and skills (or for managers, what competencies) are required to do a particular job or group of jobs, how the job tasks should be performed, and what needs to be learned in order to perform the tasks. A number of different methods for collecting this information have been used, including examining work samples, administering questionnaires, consulting with key organisational figures, interviewing job experts, and examining records or reports (Steadham, 1980). In-depth interviews are typically used to derive key managerial competencies, focusing, for example, on behavioural events or utilising repertory grid techniques. Recently, with jobs becoming more cognitively demanding, job analyses have been extended to include an assessment of cognitive

² In my experience, such organisational interventions, even if clearly warranted, are less likely to be endorsed by senior management than a training programme for employees. One wonders whether the reason may be related to responsibility for the outcomes of the interventions - with training, it is perceived to reside with the employee.

requirements, such as the underlying knowledge structures, as well as how the knowledge is to be acquired, organised and applied. The PARI methodology developed by the US Air Force (Hall, Gott & Pokorny, 1990) is an example of a cognitive job analysis. Similar to protocol analysis (Ericsson & Simon, 1984), this procedure uses 'think aloud' verbal protocols with probes to illuminate the cognitive processes used in solving a particular problem or performing a specific task. A number of alternative techniques are outlined by Ford & Kraiger (1995).

Occasionally, training programmes are required to assist with changes in strategic direction of the organisation, for jobs that do not yet exist. Schneider & Konz (1989) describe a procedure for anticipating future training needs which they have entitled 'strategic job analysis'. It includes a projection of the future job requirements, as well as considerations of computerisation and governmental regulations.

The outcome of the job analysis is a statement of the critical activities that comprise the job, as well as the underlying knowledge, skills, attitudes and cognitive processes necessary to perform those activities. (It is not a description of the current job incumbent.) This information then determines the objectives and content of the training programme. Alternatively, the job analysis may suggest that a redesign of the job is more appropriate than training employees to fit the particular job.

3) **Person Analysis** involves the assessment of a specific employee's capabilities against those required in the job or in future jobs. If a gap is found to exist, a training programme may be warranted. Person analysis asks two questions: who within the organisation needs training, and what kind of instruction do they need (Goldstein, 1993)? It also involves the development of performance criteria to assess employees before the training, and to evaluate the outcomes of training at its conclusion and on the job. This information can be collected via self-assessment questionnaires, ratings from managers, subordinates and peers, or in a more structured fashion, through assessment/development centres. It is interesting to note a study by Noe & Schmidt (1986) which found that employees who accepted the assessment of their skills were more likely to be satisfied with the content of the training programme they subsequently attended.

The systematic assessment of need at all three levels is crucial for effective training. Assessment plays a key role in cognitive-behaviour therapy too, although it is not as “systemically” oriented as in organisational training and development³. Nevertheless, it is as thorough, and similar to the training needs analysis, it forms the basis of the goal-setting for subsequent intervention. In this research, an assessment was undertaken of the organisations in which the research was to be located, the job that the subjects performed and the individual employees attending the programme.

Specifying Training Objectives

From information gained in the needs assessment phase, a blueprint emerges for the particular training objectives to be achieved. These objectives not only determine the design and content of the training programme, but are the criteria by which the programme’s effectiveness is evaluated.

“Goals and objectives are the key steps in determining the training programme, and unless they are specified, there is no way to measure success” (Goldstem, 1993, p290)

Training objectives are formulated at different levels of specificity. At the most specific end of the continuum are **behavioural objectives** which detail what will be achieved at the completion of training, by whom, to what degree of mastery, and under what conditions. These objectives are written in terms of observable behaviours which reflect the underlying abilities, knowledge and skills to be acquired. An alternative approach involves the development of **broader-based goals** for training (ideally carried out in collaboration with the trainees), which are used to guide the structure of the learning process, and as a basis for evaluation of the training⁴. Traditionally, these evaluation criteria have been used after the completion of the training (see Training Evaluation below). Recently, however, training specialists have recommended that they be used prospectively to predict training outcomes, and to structure the training accordingly (Bramley, 1993).

³ However, recent constructivist approaches to cognitive therapy do take a more systemic approach than the original cognitive therapy.

⁴ Goal-setting is used in precisely the same manner in cognitive therapy. Goals are established collaboratively (therapist with patient) at the beginning of therapy. They are used to structure the therapy process, as well as to guide each therapy session. As well, they are used as a basis for evaluation, throughout therapy and at its conclusion.

(B) Training Design and Delivery

After the training needs analysis has been completed and training objectives have been identified, the next step is to determine how training will be accomplished. The training design process and the training delivery system involve a consideration of principles of learning and instruction, motivation, trainee characteristics, training methods, the role of the trainer and practical issues pertaining to constraints and costs in relation to benefits. For training not conducted on the job, issues pertaining to the transfer of learning need also to be addressed. These factors will be considered briefly in the sections to follow.

Principles of Learning and Instruction

Whilst a definitive set of learning principles has not yet been completely specified for adult learners in work environments (Goldstein & Gilliam, 1990), theory development has progressed to the stage of providing useful guidelines for training and development. Several theoretical influences have been prominent: operant conditioning theory, social learning theory, social psychology and counselling theory. Guidelines such as the following have been shown to contribute to training effectiveness (Tannenbaum & Yukl, 1992).

- 1 The instructional events that comprise the training method should be consistent with the cognitive, physical and psychomotor processes that lead to mastery.
- 2 The learner should be induced to produce the capability actively to facilitate retention and transfer of learning.
- 3 All available sources of feedback should be used, and feedback should be accurate, credible, timely and constructive.
- 4 The instructional processes should enhance trainee self-efficacy and trainee expectations that the training will be successful and lead to valued outcomes. (For example, training should begin with more simple skills that can be mastered easily, then progress to more complex skills when trainees become more confident.)
- 5 Training methods should be adapted to differences in trainee aptitudes and prior knowledge.

In recent years, however, with the increasing cognitive complexity of jobs, these behavioural approaches to training design have been found to be only partially adequate, and there have been repeated calls to integrate the theoretical work emerging from cognitive and instructional psychology into training research and practice (e.g. Howell & Cooke, 1989, Tannenbaum & Yukl, 1992). As a result, the training literature is beginning to focus on the additional insights provided by cognitive approaches into how trainees acquire and retain knowledge and skills. Because of their relevance to this research project, these recent advances, rather than the earlier theoretical influences, will be highlighted in this section (for an overview of the earlier theoretical influences, the reader is referred to Latham, 1989). However, it should be noted that cognitive approaches to learning are perceived as supplementing the behavioural approaches in training design, rather than being in opposition to them⁵

Cognitive theories emphasise that learning occurs through a number of stages, each involving a different type of knowledge. The first stage is the acquisition of declarative knowledge [information about what], the second is knowledge compilation [integration of facts] and the third is the development of procedural knowledge [information about how] (Anderson, 1987). The use of declarative knowledge imposes a heavy demand on attention and memory, it must be retrieved from long-term memory and held active in working memory (Anderson, 1982). This results in slow retrieval times and the inhibition of concurrent operations. Through practice, feedback and reflection, however, declarative knowledge becomes compiled and proceduralised in ways that are more efficient to the learner, for example, it no longer has to be entered into working memory to be acted upon. Performance at this stage is faster and less error-prone, with discrete steps integrated into a single act (Ford & Kraiger, 1995). Furthermore, in time, the learner is able to perform the task automatically with minimal attention, which allows parallel processing of activities. At this stage, meaningful structures for organising the knowledge are also developed. These mental models facilitate the acquisition of new knowledge and the retention of existing knowledge. Kanfer & Ackerman (1989) propose that continued practice and experience also facilitate the release of cognitive resources for the development of meta-cognitive skills or task strategies. These skills, which involve being aware of and monitoring one's own cognitive processing, enable

⁵ This is similar to the integration of cognitive and behavioural techniques in cognitive therapy

individuals to “*rapidly check their work, accurately judge its difficulty, apportion their time, assess their progress and predict the outcomes of their activities*” (Glaser, 1990, p32) They are therefore important not only for learning, but also for the application and transfer of knowledge

Cognitive constructs such as proceduralisation and automacity, mental models, and meta-cognition clearly have implications for improving the design of learning experiences in organisational training. For example, the notions of proceduralisation and automacity imply that the training should be structured to assist learners to proceed as quickly and efficiently as possible through the initial acquisition stages, which make heavy demands on attention and memory, to higher-order skill development, for it is only when skills are proceduralised or automatised that they provide value to the organisation (Ford & Kraiger, 1995). Accordingly, training programmes should provide many opportunities for practice, feedback and reflection so that the transitions between acquisition, proceduralisation and automacity can take place. Furthermore, progression to new content or applications should be timed to coincide with proceduralisation and the freeing up of the learner’s cognitive resources. Techniques for helping learners develop successful mental models to organise existing information and influence the acquisition of new knowledge should also be part of the training programme. One method is through the use of advance organisers. This involves the trainee being given, in advance of training, a conceptual model, programme objectives, an outline of the programme, or even a pre-training test as an initial schema into which the subsequent course information can be organised. It also serves to focus the learner’s attention on the important components of the learning material, and to highlight the relationships between incoming information and existing relevant knowledge (Mayer, 1989). Another technique to promote the development of efficient mental models is to conduct the training in contexts that reflect the way the material will be used at work (Glaser & Bassok, 1989). These may range from completely authentic environments (that is, on the job itself), to compatible environments with equivalent learning tasks. The rationale is that, because the learning tasks are situationally-specific, the learner is better able to organise domain-specific knowledge and to incorporate problem-based goal structures in the mental model (Ford & Kraiger, 1995). With its emphasis on situationally-specific homework

tasks carried out between the sessions, cognitive therapy is compatible with this approach

Until recently, the idea of teaching meta-cognitive skills had not been considered, and to date, they have primarily been used in educational programmes to teach, for example, reading comprehension (e.g. Brown & Palincsar, 1989). Yet, the value of teaching meta-cognitive skills in organisational training programmes is clear. Argyris (1991) contends that a crucial competency for managers of the future is the ability to reflect critically on the way they define and solve problems, and the effect of their strategies on the organisation. Helping employees to monitor and assess their cognitive states, including their learning strategies, should therefore be an integral part of organisational training. Furthermore, there are explicit links with similar cognitive processes in cognitive therapy. CT techniques such as the self-monitoring and evaluation of cognitions may therefore provide a means of building meta-cognitive skills into the training process.

Each of these principles derived from cognitive and instructional psychology was incorporated into the design of the attributional training programme. Specifically, a programme outline and learning objectives was sent to all participants prior to the commencement of the programme to act as an advance organiser. During training, learning material was introduced according to a graded hierarchy, commencing with a factual presentation (declarative knowledge) and progressing through to practical activities using real work experiences. Multiple opportunities for practice, feedback and reflection were specifically programmed throughout the course, and reinforced through the homework assignments. Lastly, through monitoring and evaluating their cognitions, and reflecting on their experiences, delegates learnt how to improve their meta-cognitive skills. The Participants Workbook was specifically designed for this purpose.

However, while these and other principles from theories of learning and instruction are important to guide the design of training, they are not sufficient. Consideration of factors affecting trainee motivation is also important.

Motivation

Factors affecting trainee motivation can be divided into two groups those which pertain to the training process and those which relate to the employees themselves. Recent research indicates that employees' motivation to initially engage in training may be more a function of interpersonal differences than of elements of the training (Ford & Kraiger, 1995)⁶. For example, employees who have high self-efficacy (Gist, 1989), locus of control (Williams, Thayer & Pond, 1991) and job involvement (Noe, 1986, Noe & Schmidt, 1986) have been shown to be more motivated to learn. Once employees have made a decision to engage in training, however, it is important that the process be designed in such a way to maximise motivation. Unfortunately, there has been relatively little research directly investigating motivation in training contexts. However, as Ford & Kraiger (1995) note, participants in any enterprise, including training, are likely to be motivated if goals are set that are specific, challenging and achievable (Locke & Latham, 1984), if participants see a clear path between engagement in training and valued personal outcomes (Vroom, 1964), and if desired behaviours are demonstrated by models perceived to be high status, psychologically similar and successful (Bandura, 1977). I would like to add a further factor training programmes which encourage participants to attribute their improvements to internal and stable factors, such as their ability, learning style or personality, rather than to the programme or trainer, and their failures, in contrast, to specific, unstable aspects of themselves or the environment, are also likely to enhance trainee motivation (e.g. Weimer, 1986a).

Recent research in cognitive psychology provides further insights into enhancing motivation in training. Kanfer & Ackerman (1989), for example, submit that motivational factors have different effects at various stages of learning. Their studies showed that interventions such as goal-setting hinder performance if introduced during the initial stages of learning (when they compete for attentional resources that are already stretched), but if introduced in later stages of skill acquisition, performance is enhanced by ensuring that attention remains directed on the task. The implications for the design of training programmes are clear. Motivational interventions should be restricted to the

⁶ This fits with the Individual Learning Model from which the training model of this research is derived. One of its underlying assumptions is that employees are motivated to improve their performance, which in turn will improve the effectiveness of the organisation.

pre-instructional period (which does not draw attention away from the learning task), and to later stages of training when the attentional demands of the task are lowest. Thus, for example, setting goals for training before the commencement of the programme, and again towards the conclusion of training (to enhance maintenance and generalisation of learning), would seem good practice. This was the procedure followed in the attributional training programme.

Training Methods

Another major question in the design of training is the selection of training methods. Goldstein (1993) stipulates that it is necessary to understand the type of learning involved before it is possible to choose the most effective learning procedures. However, again, there has been insufficient research to determine which kind of training experiences produce particular outcomes, and which variables affect the relationship between treatments and outcomes (Campbell et al., 1993). Furthermore, the research that has been conducted has tended to focus on reactions and learning during training, to the exclusion of performance on the job. A plethora of training techniques exist (Huczynski, 1983, for example, identified 300 different techniques for management development). In the interest of brevity, this section will concentrate on the most commonly-used techniques, and a selection of those which have attracted special attention in recent years.

The most commonly-used training methods in organisations⁷, as determined by a large survey conducted by Gordon (1988), are videotapes (used by 87% of organisations surveyed), lectures (83%), instruction on the job (71%) and role playing (60%). It is interesting to note that these are also the more traditional training methods.

(1) Almost all employees are exposed to some form of **on-the-job training**. It is relatively inexpensive, it takes place in the job context and therefore obviates the necessity for attention to transfer issues, and learning is focused on work-based projects so that performance is enhanced. The range of such activities is large, some of them

⁷ The reader is reminded that, while most learning in organisations is incidental and informal, this discussion pertains to planned learning.

focus on self-directed learning, others involve trainers, supervisors or peers. At one extreme is training that is embedded in the work task, for example some office machines, such as word processors, indicate where a problem has occurred and the steps to take to solve it, thereby training the user to use the machine effectively. Mentoring, on the other hand, typically involves key people in the organisation who are an important part of the job design, the reward system and the culture, learning is therefore anchored into the organisational context, and is usually highly effective. Career advancement (e.g. through exposure, visibility, coaching) and enhancement of a sense of competence through role modelling, counselling and friendship have also been shown to result from mentoring relationships (Baldwin & Padgett, 1993). Job assignments are another form of planned on-the-job learning, particularly for managers. Learning in this case is self-directed. Typically, the gap between the skills and abilities of the individual and those required by the assignment motivates the manager to learn what is necessary to carry out the responsibilities of the project (McCauley, Ohlott & Ruderman, 1989). Job rotation is thought to work in the same way, in addition to giving employees a broader perspective of the organisation. In sum, the benefits of well-planned on-the-job training are great. In many organisations, unfortunately, on-the-job training is ad hoc and not adequately planned. When used to avoid the necessity of designing or paying for a training programme, this training is rarely successful.

(ii) **The lecture method** is cheap, time-economical and efficient for communicating information, and therefore is popular in organisations. However, it has a number of drawbacks: it casts the learner in a passive role, it is insensitive to individual differences, and it provides little feedback to learner and trainer. As far as learning potential is concerned, there is evidence that lectures are effective for knowledge acquisition, but not for complex responses or for attitude and behaviour change (Goldstem, 1993).

(iii) **Audio-visual training techniques** also have advantages of economy of scale and are especially useful in situations where 'expert' instructors are not available. However, like lectures, they involve one-way communication and put the learner in a passive role. Further, they allow little opportunity for note-taking or questions. On the other hand, the visual medium is very powerful for conveying ideas, and is an effective way of inducing attitude change (for example, safety training).

(iv) **Role playing** has been used primarily for the development of human relations skills (such as conducting appraisal interviews), as well as for the generation of solutions to interpersonal situations and for attitude change (Bass & Vaughan, 1966). The advantage of the technique is that it gives trainees the opportunity to practise solutions to job-related problems as a pre-cursor to using them in the work environment. Role playing is an important component of **behavioural role modelling**, a procedure derived from social learning theory and used particularly in management training. A meta-analysis of training studies involving behavioural role modelling has shown it to be one of the most effective training methods (Burke & Day, 1986).

Training techniques that have attracted special attention in recent years include simulations and games, high technology methods such as interactive videodisc instruction, and outdoor learning programmes. **Simulations and games** vary widely in application from simple simulations such as 'in-tray' activities, to complex computerised business games, combat simulations, and large-scale simulations of a particular type of organisation. Despite their appeal, however, it has been established that learning does not occur automatically as a result of the game experience, and that extensive preparation, planning and debriefing are needed to realise its benefits (Keys & Wolfe, 1990). The same has been found to be true of **outdoor learning programmes**. The focus of these programmes has been on individual growth and change, leadership development and team building, however, many of them lack two critical components which limit their effectiveness: the development of action plans to transfer the learning to the workplace, and effective follow-up. When these components are present, however, there is evidence that changes in attitudes and behaviour have resulted (Baldwin & Padgett, 1993).

An outgrowth of programmed learning and computer-aided instruction, **interactive videodisc instruction** combines the advantages of multimedia learning with computer interactive training. A meta-analysis of 47 studies conducted by Fletcher (1990) found it to be substantially more effective than a number of conventional training methods, the more interactive features, the greater the effectiveness. Furthermore, the within-group variability in outcome scores was lower for videodisc instruction than for conventional

instructional methods, indicating that the benefits are widespread, rather than attributable to a large improvement in a few trainees

Clearly the selection of training method is an important consideration in the design of a training programme. However, the adoption of a single technique is not the answer, nor is offering a menu of activities hoping that everyone will learn. Attention is needed to the way individuals learn. The purpose of training is to help them to understand and improve their own learning processes, and to apply this knowledge so that they continue to learn from equivalent learning experiences back on the job.

“Effective learning processes are defined most appropriately by the learner, not by the tutor” (Mumford, 1991, p21)

This was the approach taken in the development of the attributional training programme.

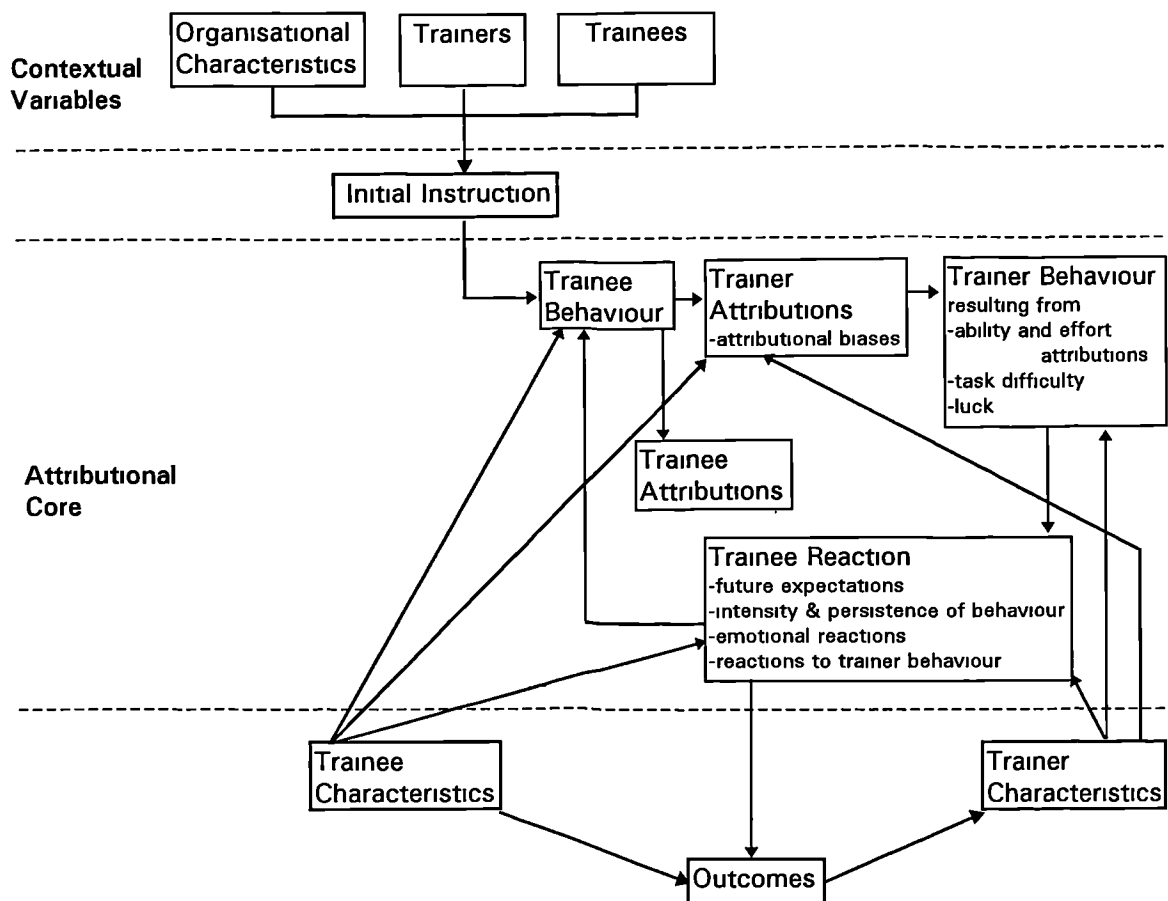
Role of the Trainer

Another important consideration in the design of training is the role of the trainer. The trainer may represent the first interaction with the organisation for new employees, and may shape their subsequent attitude to the organisation. Where supervisors are involved in training existing employees (as in coaching or behaviour modelling techniques), the training interactions can affect future leader-subordinate interactions. Furthermore, the role of the trainer can actually affect training outcomes. High expectations by trainers, for example, have been shown to increase trainees' self-expectations and performance – the ‘Pygmalion effect’ (Eden & Ravid, 1982, Eden & Shani, 1982). As Goldstem (1993) notes, the trainer's role is a potent one, and the way the role is performed can make the difference between a successful and unsuccessful learning experience. Yet, paradoxically, the role of the trainer has attracted very little research attention (Wexley, 1984).

One notable exception is the work of Steiner, Dobbins & Trahan (1991), who have developed an attributional model of trainer-trainee interactions. Not only is the model generally informative, it has specific relevance for the current research, lodged as it is within an attributional framework. The model outlines three groups of contextual factors that exert a strong influence on training: trainer characteristics (expertise, interpersonal

skills, status within the organisation), trainee characteristics (knowledge, skills, ability, motivation as well as the attributions they make for being recommended for the training programme), and characteristics of the organisation (such as its goals for training, its resources, and the degree of support for training) These factors influence the type of training selected, the content, and the likelihood of its effectiveness

Figure 3 2 *Attributional Model of Trainer-Trainee Interactions (Steiner, et al 1991)*



The model proposes that trainee behaviour in response to the initial training sessions initiates the “attributional core” of the model. The trainer makes attributions about the trainees’ behaviour, which may be biased by factors such as actor-observer differences and self-serving biases (for example, good trainee performance is likely to be attributed by trainers to their own outstanding training, whereas poor performance is likely to be attributed to poor learning or lack of ability on the part of the trainee) Trainee characteristics such as race, likeableness, gender may also affect trainer attributions As

training continues, trainers' attributions are a major determinant of their behaviour towards trainees. For example, trainee performance attributed by trainers to ability will affect the characteristics and pace of instruction, effort attributions will affect the type of motivational techniques used by the trainer, and task difficulty attributions for trainee performance may result in a modification to the training technique, perhaps to a more participative technique, or to provide more support or coaching. Trainees will also make attributions about their own behaviour, these typically will be different from those made by the trainer, due to differences in perspective and available information. Trainee attributions will influence their expectations for future training performance, the intensity and persistence of their behaviour, their affective response to training, and their reactions to trainer behaviour. For instance, if trainer behaviours are in synchrony with the factors to which trainees attribute their performance (e.g., if trainees attribute their low performance to external factors, and trainers change the training environment), higher levels of trainee satisfaction and greater behavioural change will result. If however, trainees perceive the trainer's behaviour as inappropriate, they will be inclined to question trainer competence, and reject his or her feedback or guidance. This of course will greatly reduce the effectiveness of training. The outcomes of the training process in terms of satisfaction, learning and job performance are the fourth component of the model.

Stemer et al. (1991) extract a number of practical implications for trainers from their model. First they recommend that all trainers receive training to recognise and avoid common attributional biases, in order to help them to increase the accuracy of their own attributions and to give them an understanding of trainee's attributions and biases. This they suggest will enhance the trainer-trainee interaction and improve learning. Second, they advocate that training programmes be designed to ensure that trainees attribute their successes to stable factors and their failures to unstable factors, which will assist them to develop high expectations for future performance and greater persistence following failure. These recommendations are relevant for the present research project. All participating trainers received attributional training, in addition to training in cognitive-behaviour therapy techniques, prior to the commencement of the research project (a 'Train the Trainers' course was written for this purpose⁸). Regarding the second

⁸ I am grateful to Dr Melanie Marks for her input to the development of this course

recommendation, the central purpose of the attributional training programme developed for this research is to effect attributional change at work along the lines recommended by Steiner et al. for training, although, of course, more far-reaching. Within its broader application, the programme also aims to ensure that delegates attribute their training successes to internal, stable and global factors, and their failures to unstable and specific factors.

Trainee Characteristics

As indicated in the Steiner et al. model above, learning is not just a function of the type and effectiveness of the training programme, nor of the trainer. The personal characteristics of the trainee are also important. It has been estimated that approximately 16% of the variance in training outcomes (in terms of trainee performance) can be attributed to trainee ability, and a further 15-20% can be accounted for by trainees' motivation and their perception of the work environment (Noe, 1986). Other trainee characteristics which have been shown to impact on training effectiveness (in addition to attributions) are self-efficacy and expectations about training (Tannenbaum & Yukl, 1992). As trainee motivation and attributions have been discussed previously, this section will briefly review the research on trainee ability, self-efficacy and expectancies.

(1) Trainee Ability and Skills It has long been recognised that training has a differential impact on trainees of different aptitudes. Cronbach & Snow (1977) have labelled this differential impact the "aptitude-treatment interaction", and suggest that in order to maximise learning and transfer, each trainee should be provided with an appropriate model of instruction according to his/her aptitude. It has been shown, for example, that high-ability trainees benefit more from programmes with less structure and greater complexity, whereas low-ability trainees benefit more from explicit, structured instruction (Snow & Lohman, 1984). Shorter training programmes are more suitable for experienced trainees with high levels of task-related abilities (Fleishman & Mumford, 1989). The implications are that the existing ability of trainees should be measured before the commencement of training, and the instructional programme tailored

accordingly⁹ This is sound advice for individualised learning The reality of group training, however, is that it is rare to have a homogeneous group of learners This puts responsibility on the trainer to make the mode of instruction as varied as possible to accommodate individual differences in ability and learning style

(ii) Self-efficacy Not only does trainee self-efficacy predict training motivation (see earlier), it has been shown to be a strong predictor of performance in training, independent of trainees' learning and attitude towards training (Gist, 1987) Moreover, individuals who leave training with the belief that they can successfully perform the task they have been trained to do are more resilient when they encounter obstacles (Marx, 1982) Targeting trainee self-efficacy as a goal of the training programme is therefore important Mastery experiences and modelling are the most successful methods for increasing self-efficacy (Bandura, 1982), yet "*many training courses focus heavily on lectures, imparting knowledge, doing little to enhance performance through increasing trainees' self-efficacy*" (Gist, 1989) Increasing trainee self-efficacy is a specific aim of the attributional intervention targeted in this research

(iii) Expectations about training Tied to notions of self-efficacy are trainees' expectancies about the training process and its outcomes In a tightly controlled study, Tannenbaum et al. (1991) demonstrated that trainees who have their pre-training expectations and desires met develop greater post-training commitment, self-efficacy and motivation, even when pre-training attitudes and ability as well as training performance and trainee reactions are controlled Further, it has been shown that trainees' achievement can actually be improved by enhancing their expectations (Eden, 1990) This research has implications for training design clarification of trainee's expectations for the training - and enhancement when necessary - would appear to be a key component of the training process It is also key to the cognitive therapy process, and was therefore an important component of the attributional training programme

⁹ Tests of trainability, in which instruction is followed by a work sample test, have been shown to predict subsequent training and job performance in most situations (Robertson & Downs, 1989) However, questions remain as to whether they provide any additional information beyond that provided by cognitive ability tests

Transfer of Training

For training to be effective, it must result in effective performance on the job. Yet training evaluations repeatedly reveal that skills and abilities acquired during training either fail to generalise to the work setting, or more commonly decay over time back on the job, often to the point where trained and untrained groups are indistinguishable (Tziner et al 1991). Some estimates suggest that up to 90% of the training conducted in organisations fails to transfer to the job (Georgenson, 1982). Clearly, successful generalisation and maintenance of training represents a significant challenge to training researchers and practitioners.

Research to date has focused principally on identifying factors in training design (e.g. conditions of practice, identical elements, overlearning), trainee characteristics (need for achievement, locus of control, job involvement, motivation), the work context (supervisor support, situational cues, rewards) or post-training strategies (goal-setting, buddy systems, refresher sessions) that enhance training transfer (Baldwin & Ford, 1988, Noe & Ford, 1992, Roullier & Goldstem, 1991). Many writers are now asserting that these are not enough, and that a shift in focus is needed. Mumford (1991), for example, maintains that rather than aiming to equip trainees with knowledge, skills and abilities which then often fail to transfer to the job, training programmes should focus on effectiveness, that is the activities associated with effective performance (as in action learning). If this happens, he claims, problems of transfer are removed. Baldwin & Padgett (1993) concur:

“ the transfer problem occurs not only because the system often fails to reinforce the new behaviours, but because there is frequently direct pressure applied to individuals to keep their behaviour the same once they return to the job. This is much less likely to be a problem with action learning programmes because the projects which form the basis for the programme are of real concern to the organisation. In addition, action learning principles may help maximise the learning potential of the informal, unplanned experiences that occur naturally on the job (p67)

Other training researchers are turning to cognitive and instructional psychology to gain an understanding of the mental processes required for effective transfer. Annett (1989), for example, proposes that transfer of a learned skill will only occur when it has been incorporated into a plan or model for dealing with the situation, to promote transfer, he

suggests, we must pay attention to the plans or control strategies people use to deal with unfamiliar situations. He distinguishes between 'transferable skills' (core skills learned in one context which can be transferred to others) and 'transfer skills' (metacognitive strategies that help the trainee to apply what has been learned to different situations). The key to promoting effective transfer, he maintains, lies not so much in the transferable skills, as in the meta-cognitive strategies needed to use them. Such strategies, he asserts, can be taught. They include the identification of a problem, exploring a number of possible solutions, applying a solution, monitoring its effectiveness and incorporating the resulting information into a modified account of the problem or a new attempt at solution.

These strategies, it will be noticed, are similar to the cognitive-behavioural strategies used in cognitive therapy. It too focuses on problem-solving, and provides a suite of techniques to this end. Although known by different labels, the strategies nevertheless work towards the same aims of identifying problems, exploring a number of solutions (e.g. the 'alternatives' technique), trying them out for homework and monitoring their effectiveness.

Another fruitful line of research into the transfer of training issue has focused on self-management skills and relapse prevention training. Adapted from the mental health field (Marx, 1982), the training focuses on preparing the trainee for the transfer situation by anticipating possible constraints or obstacles to using the new behaviours on the job, and developing, in advance, appropriate problem-solving strategies as well as sources of feedback and support. Studies have shown the techniques to be effective in enhancing skill transfer and overall performance (Marx & Karren, 1988, Gist et al., 1990).

Taken together, these recent lines of research suggest that transfer is enhanced when the training is based on work-related projects, when trainees are capable of self-monitoring effectively, and when they have developed various strategies (for learning, problem-solving and support) to cope with unexpected occurrences in the transfer setting. It is obvious from the foregoing review that transfer of learning cannot be left to chance. Rather than attempting to take remedial action once the transfer fails to take place, strategies to promote transfer need to be programmed, in advance, into the training.

design, and steps should be taken, again in advance, to ensure that the work environment will support and strengthen the training. These considerations were incorporated into the attributional training programme. As the training was off-the-job, transfer was an important issue. Thus, in design of the programme, the training content was linked specifically to the job, opportunities for practice were spread throughout the course, and homework was used to assist the delegates to apply the course strategies on the job. In addition, delegates were taught to monitor their own cognitive processes, with an emphasis on enhancing their problem-solving abilities so that, after the conclusion of the programme, they would be able to diagnose problems and generate their own solutions. In terms of establishing a facilitative work environment for the training to transfer, the support of the delegates' supervisors and the company trainers was engaged. Further, a number of post-training strategies to enhance transfer were incorporated, including relapse prevention strategies in the final session, goal-setting at the conclusion of the course and a refresher session after the completion of the programme. These steps will be outlined in more detail in Chapters 5, 6 and 7.

In summary, the training design and delivery process involves a consideration of principles of learning and instruction, motivation, trainee characteristics, training methods, the role of the trainer and issues pertaining to the transfer of learning. Having briefly examined each of these aspects, we turn now to the third component of the training systems model (Figure 3.1) evaluation.

(C) Training Evaluation

As in cognitive therapy, evaluation is an integral part of the training process. It is not the end-point of the process, but part of the closed loop system, such that the findings of the evaluation feed back into the assessment of need, and inform decisions about the modifications needed to the programme (see Figure 3.1). Training evaluation involves the consideration of a number of issues:

1. what will be measured (what outcome criteria will be used),
2. how the evaluation will be performed (the design of the evaluation), and how the results will be analysed.

These will be discussed in the section to follow.

Criterion Issues

The instructional objectives, established through the organisational, job and person needs analyses, inform not only the design of the training programme, but how it is to be evaluated. To be useful, however, the evaluation criteria need to be reliable and free from bias, and measure both training outcomes and performance on the job. Kirkpatrick's typology continues to be influential (Kirkpatrick, 1976). It focuses on four levels of training outcomes:

- (a) trainee's reactions to the programme content and training process (**reaction**)
- (b) knowledge or skill acquisition, and attitude change (**learning**)
- (c) job performance (**behaviour**)
- (d) improvements in individual or organisational outcomes, such as turnover, absenteeism, accidents, or productivity (**results**)

The most commonly-used criterion of training effectiveness, as noted in a survey of over 600 firms, is the reaction of participants (Saari et al., 1988). Yet, Alliger & Janek (1989) found that there was virtually no correlation between measures of reaction and those of learning, behaviour and results. Furthermore, a very low correlation (.13) was found between learning and behaviour, although the relationship between learning and results was better (.4). Some writers, e.g. Mumford (1991) assert that the only valid criterion of training effectiveness is the employee's behaviour on the job. I would suggest that measurement at all four levels of Kirkpatrick's typology is necessary to gain a sound evaluation of a programme.

In recognition of the newer influences on learning principles and instructional theory, several authors are calling for broader definition of training evaluation, incorporating cognition and perceptions as well as the traditional knowledge and behaviours. For example, Kraiger, Ford & Sallas (1993) propose that three categories of learning outcomes are needed: cognitive outcomes (including verbal knowledge, knowledge organisation, and cognitive strategies), skill-based outcomes (skill compilation and automaticity) and affective outcomes (both attitudinal and motivational). Training evaluations have been carried out based on these criteria, e.g. Goldsmith & Johnson (1989), Glaser, Lesgold & Gott (1986). This blend of cognitive, affective and

behavioural evaluation criteria was consciously incorporated into the studies of this research

In the selection of evaluation criteria, issues of relevance, reliability, validity and cost must also be considered by the trainer (Goldstein, 1993). A useful approach, I would suggest, is to involve all parties in this decision-making. The views of management as to the expected outcomes of the training, in particular, must be sought. As well as validating the selection of evaluation criteria, it is my experience that this ensures greater commitment to the evaluation process. Such was the procedure followed in this research. The choice of evaluation criteria were negotiated, prior to the commencement of training, with each of the organisations in which the attributional training programme was conducted.

Design of the Evaluation

A variety of evaluation designs are used in organisations (see Cook, Campbell & Peracchio, 1990, Goldstein, 1993 for a detailed overview). **Experimental designs** using an experimental and control group, random allocation to groups and pre- and post-training measures are the most valid form of training evaluation. They permit replication and allow questions of training effectiveness and generalisability to be answered. Use of a waiting-list control group strengthens the design, as it controls sources of error that arise from the differential treatment of subjects in the experimental and control groups. However, a waiting-list design is unable to control threats to external validity, such as the Hawthorne Effect (Roethlisberger & Dickson, 1939) and pre-test sensitisation of trainees. Employing a second training intervention as a comparison, instead of a control group, reduces some of these limitations.

Experimental designs are not as common in organisational training evaluations as they are in evaluations of cognitive therapy, primarily due to the constraints imposed by organisational contexts (more about this in the next chapter). Nevertheless, when they are used, the strength of training intervention can be demonstrated (e.g. Latham & Saari, 1979), and it can be compared against other forms of organisational intervention (e.g.

Guzzo, Jette & Katzell, 1985) Such experimental analyses are important for refinement of training strategy, as well as for arguments concerning size of training budget

However, in many cases of training evaluation, **quasi-experimental designs** are employed instead of experimental designs. A **time series design**, for example, may be used if it is not possible to employ a comparison group. Measures are taken on a number of occasions pre-training and post-training to avoid the potential contaminating effects of maturation, testing and regression to the mean, however, the influence of extraneous events during the post-test measurements cannot be controlled with this design. Alternatively, when the use of a control group is possible, but random allocation of trainees to groups is not (such as when employees clustered in work groups or geographic regions are to receive the training en bloc) a **non-equivalent control group design** may be used. In this situation, trainees are not randomly allocated to groups. The use of intact groups can reduce the Hawthorne Effect, as the evaluation can be designed to be part of normal routine, but there is a risk that the outcome may simply reflect the differences between the people in the two groups, rather than any difference due to the training (Dunn, 1987). The conclusions from such research therefore need to be drawn with caution.

Unfortunately, **non-experimental designs** are still being used in companies in the name of training evaluation. They simply involve some form of assessment after the training has taken place. However, without a pre-test, there is no way of ascertaining whether any change has occurred, and without a control group, it is impossible to infer that the cause of any change perceived was the training. For anything more than providing case study information, their utility is minimal.

Despite the difficulties of conducting empirical research in organisations (the full force of which was felt in this research project, see Chapters 5,6,7), a full experimental design was employed in each of the studies. It will be outlined in detail in the following chapter.

Issues of Analysis

Data Analysis

In experimental designs, the nature of the evaluation influences the type of data analysis to be performed. Arvey & Cole (1989) compared a number of statistical methods for assessing training outcomes with experimental and quasi-experimental designs. In terms of statistical power, ANCOVA was found to be the most powerful analysis for experimental designs, but the power differences were affected by sample size and the degree of correlation between pre- and post-test. As far as concerns the analysis of data from quasi-experimental designs, particularly those employing non-equivalent control groups, Arvey & Cole suggested the use of an alternative ranks procedure when sample sizes are small, and the use of a latent-variable models when pre-test differences are exhibited. However, they note that the measurement of change across non-equivalent groups remains a problem in training evaluation.

Other research has similarly addressed the question of appropriate analysis for quasi-experimental designs, or for situations where there is a threat to the validity of the evaluation. For example, Maxwell et al. (1991) assessed two methods for increasing power in randomised between-groups designs, and recommended the use of analysis of variance (ANOVA) with repeated post-test measures for evaluations where pre-test sensitisation, cost or feasibility of pre-test administration makes it difficult to use the pre-test as a covariate. These advances have gone a little way to addressing the issue of appropriate data analysis for quasi-experimental designs, but as Tannenbaum & Yukl (1992) assert, further research is needed.

Utility Analysis

Recently, another form of evaluation has become important in organisations: the cost-effectiveness of the training. The translation of training outcomes into monetary value, known as utility analysis, has several important uses. Not only does it allow organisations to gain information about the costs of the programmes they use in comparison to the benefits accruing from them, it also permits comparison between different training programmes, for example a formal training programme versus on-the-job training, or between a training programme and other organisational interventions.

such as technology innovations or selection systems Goldstem (1993) suggests that utility analyses also allow the organisation to gain quite specific information, such as the effects of training people in different jobs, the effects of different rates of turnover of trained employees, and projections concerning the effects of a programme decreasing in efficiency over time With the increasing emphasis in organisations on gaining competitive advantage and becoming leaner and more efficient, the evaluation of training in terms of its cost-effectiveness has many important advantages Cascio (1989) has developed a utility analysis methodology to permit a measurement of training outcomes in terms of monetary value and percentage increase in output It takes into consideration variables such as the costs involved in training development, materials, time and production losses, as well as the expected benefits over time As he notes, unless training programmes are analysed in monetary terms, they will continue to be viewed as a cost rather than a benefit to organisations

Training Evaluation - Concluding Comments

Training is a dynamic, evolving process of which evaluation forms an integral part By definition, therefore, evaluation is also an ongoing process rather than a one-off event It continues throughout the life of the training programme to ensure that the programme still matches the needs of the organisation, the demands of the job and the individual characteristics of the particular group of trainees Further, evaluation indicates whether the training design needs to be revised Thus, there are a series of internal loops within the closed loop, as the evaluation process continually assesses and revises components of the system.

Behaviourist approaches have been most influential in training evaluation over the years, and have left a fine legacy of methodology However, in recognition of the newer cognitive influences on learning principles and instructional theory, a broader perspective to training evaluation, incorporating cognition as well as traditional knowledge and behaviours is required Furthermore, with the increasing trend of organisations wishing to see a return on their investment in training, a focus on organisational outputs, and on the cost-effectiveness of training, is assuming greater importance

3.2.3 ATTRIBUTIONAL CHANGE IN ORGANISATIONAL TRAINING AND DEVELOPMENT

Attributional change programmes have not been employed to date in organisational settings. Yet, employees' attributions for work events are clearly an important consideration, given the link between attributions and performance/employee turnover (Seligman & Schulman, 1986, Corr & Gray, 1995a). Companies are recognising the significance of these qualities by earmarking them in their recruitment and selection systems. But for existing employees, nothing has been available to assist them to improve their persistence and performance through attributional retraining.

However, attributional change programmes have been used extensively in educational contexts, and to the extent that achievement issues are important in both areas, some guidelines can be drawn. A variety of interventions have been used in education, most have employed persuasion in one form or another to initiate attributional change, and most have been successful in improving persistence and/or performance (e.g. Dweck, 1975, Fowler & Peterson, 1981). Organisational training and development offers equivalent opportunities. Workplace training and development interventions take a variety of formats. The group format provides opportunities for observational learning, modelling, role playing and rehearsal, social reinforcement and mastery experiences - all training methods backed by sound psychological theory (and, Bandura would add, more effective than persuasion in enhancing self-efficacy and thereby performance). It must also be added that groups provide a source of consensus information which is known to aid accurate attributional formulation. Thus an organisational group training programme would appear to be particularly suitable for workplace attributional training.

3.2.4 SUMMARY AND CONCLUSIONS: ORGANISATIONAL TRAINING

This second section of the chapter has presented the key components of organisational training and development from a theoretical basis. It started with a consideration of definition and progressed to a discussion of two training models, each reflecting a different philosophical orientation towards training and development. A training systems

model (Figure 3 1) was developed as a framework for this section of the chapter. It stresses the idea that training is a closed loop system consisting of three components: assessment of needs, training design and delivery, and evaluation. Training needs analysis provides critical information both for the training process (selection of content, learning principles and the instructional method), as well as for the evaluation process (selection of criteria and evaluation design). Evaluation is an ongoing process. It ensures that the programme continues to match the needs of the organisation, the demands of the job and the individual characteristics of the particular group of trainees, as well as determining whether the training design needs to be revised. Although a definitive set of learning and transfer principles has not yet emerged for adult learners in work environments, guided by recent developments in cognitive psychology and instructional theory, a set of theory-based guidelines is emerging. Similarly, sound empirical research is assisting with the delineation of trainer and trainee characteristics that facilitate learning and development. The second section of the chapter concluded with a consideration of the suitability of organisational training and development as a vehicle for effecting attributional change.

3.3 SIMILARITIES BETWEEN COGNITIVE THERAPY AND ORGANISATIONAL TRAINING AND DEVELOPMENT

As systems of change, cognitive therapy and organisational training and development share many similarities. At the macro level, they are both based on an educational model and underpinned by self-help principles. Both assume that the purpose of the intervention is for the clients to learn new knowledge, attitudes or behaviours in order to be able to use it independently. Each is grounded in a scientific body of knowledge and informed by theory, which evolves as empirical investigations are conducted. (This feature is more established in cognitive therapy than organisational training and development, although it is increasing in the latter.) Furthermore, both systems operate as a structured process, with a number of stages in common. Each has an assessment stage, which informs the goal-setting procedure for the intervention, this is conducted collaboratively between trainer/therapist and client. In both cognitive therapy and organisational training, the goals determine the design and process of the intervention. Great store is placed on generalisation and maintenance of outcomes in both systems, and specific

techniques are included to ensure they occur. Evaluation is also an integral part of both systems. It takes place in a structured way throughout the interventions to determine whether needs are being addressed and if changes are warranted, as well as at the end of the intervention to measure its effectiveness.

On a micro level, there are also a number of points of similarity between cognitive therapy and organisational training and development.

- Sessions are structured
- Clients are actively involved in the therapy/learning process, and are encouraged to take responsibility for their learning/therapeutic change
- Homework is an integral part of the process. It assists the application of strategies to the job/home situation
- Participant feedback is sought throughout the session
- The session is summarised at its' conclusion

These similarities were extracted as a springboard for combining the two systems of change to create a model for work-place attributional change. This is the focus of the next chapter.

3.4 SYSTEMS FOR CHANGE: CONCLUSION

This chapter has presented an overview of cognitive therapy and of organisational training and development. The theoretical basis of each area was described, highlighting the points of intersection between the two. Conceptual and empirical developments in the two fields were profiled, and it was noted that cognitive psychology and information-processing theories were influencing both. Each system was separately considered in relation to its application for attributional change. The key similarities between the two systems of change were drawn at the conclusion of the chapter, which points the way for them to be interwoven, in the next chapter, into an organisational model of attributional change based on cognitive therapy principles.

METHODOLOGY

“If [people] define situations as real, they are real in their consequences ”

(W I Thomas, quoted in Volkart, 1951, p81)

4.1 INTRODUCTION

The topic of this thesis is attributional change in the workplace. In the preceding chapters, I have reviewed the literature on attribution theory and attributional change interventions, on cognitive therapy and on organisational training, and have concluded that, from a variety of possible approaches, an intervention derived from an integration of cognitive therapy and organisational training principles holds promise for effecting attributional change at work. In succeeding chapters, I will test this hypothesis through a series of experimental studies. The purpose of this chapter is to weave a theoretical and methodological context for the studies. First, a model will be developed to explain the psychological and behavioural consequences of work-related attributions. Next, the attributional intervention will be positioned into the paradigm, and hypotheses derived from the model. The choice of dependent variables for the intervention will be explained, and the research measures will be described. Lastly, a new domain-specific attributional style questionnaire will be developed, in preparation for the experimental studies to follow.

4.2 THE MODEL

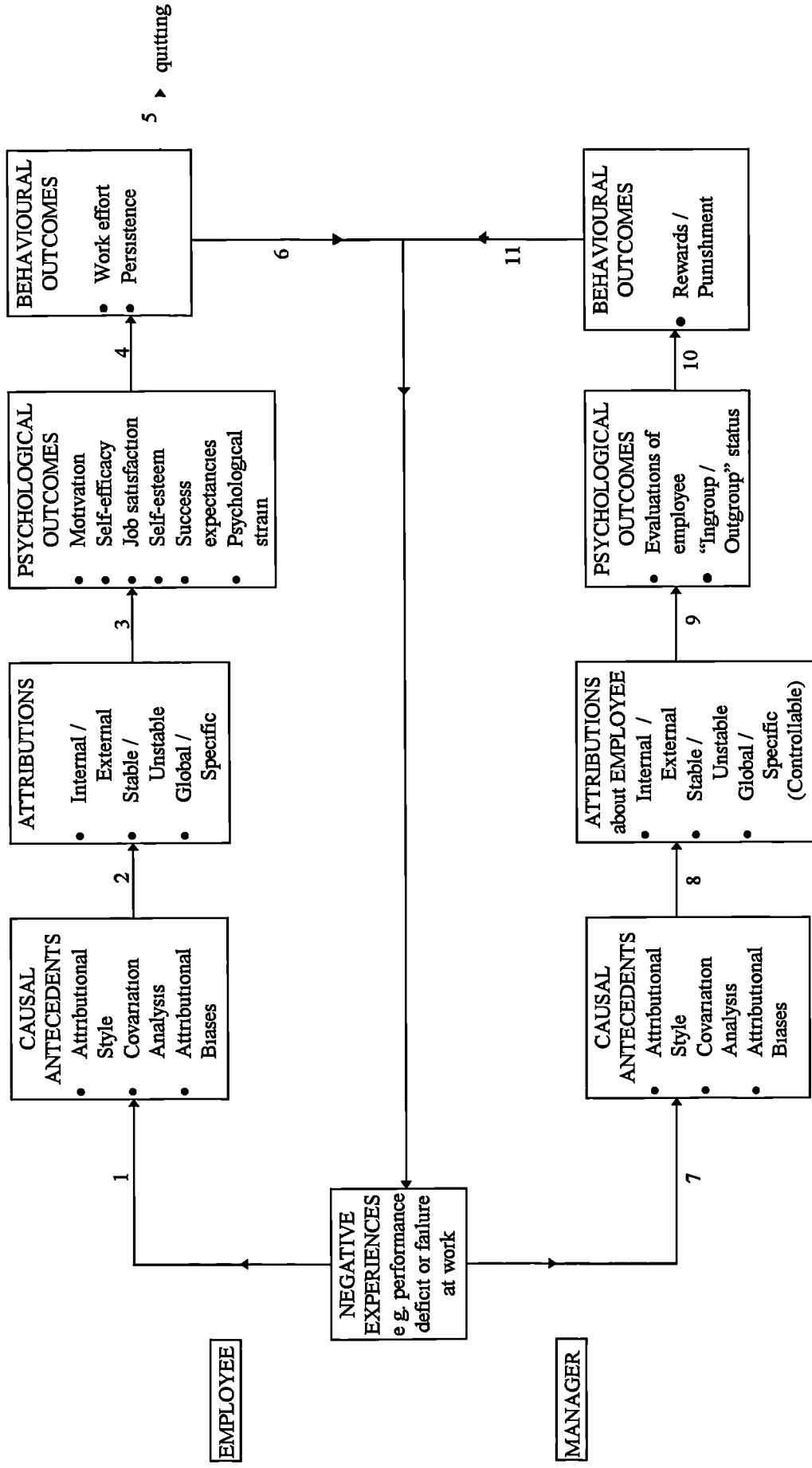
A model should provide a framework for hypotheses about the causes of the phenomenon, and should serve as a heuristic device for the development of means of intervention (Rehm, 1977, p788)

This section focuses on the development of a model for understanding the effects of a self-derogating attributional style at work. Consistent with Rehm (1977), the model will guide the creation of testable hypotheses and inform the development and

evaluation of the workplace attributional intervention. Due to the interdisciplinary nature (within psychology) of this research, and the relatively recent application of attributional principles to the world of work, inputs to the model are taken from a number of sources. The review of the literature pertaining to attribution theory in Chapter 2 highlighted three theories as particularly relevant: Weiner's attributional theory of achievement motivation and emotion (Weiner 1985a), the reformulated learned helplessness theory of depression (Abramson et al. 1978), as well as its recent restatement incorporating hopelessness, and Martinko & Gardner's attributional model of leader/member relations (Martinko & Gardner, 1987). These theories form the framework on which the research model was developed. They were expanded, integrated with each other and lodged within an occupational context. Then other key components, derived from research in social, clinical and particularly organisational psychology, were added.

The resulting model is outlined in Figure 4.1. It predicts that when faced with negative experiences at work such as performance deficits or failure, individuals will make attributions for their performance. The processing of this information is affected by the situational information inherent in the organisational environment as well as the individual's attributional biases and attributional style. Individuals with a pessimistic attributional style will typically attribute the negative events to internal, stable and global factors, such as inadequate ability (and positive events will be attributed to external, stable and global factors, such as luck). When occurring on a regular basis, it will undermine their motivation, self-efficacy, job satisfaction, self-esteem and psychological well-being, and will create an expectation that it is impossible to improve. Such individuals will lose hope, and stop trying. Work effort and persistence will be affected, which, in turn will result in deficient performance on future tasks. A self-defeating pattern of causal attributions, performance expectations, effort, task performance and subsequent causal attributions is created.

Figure 4.1 A Model of Work-Related Attributions



The cycle will be exacerbated if the person's manager attributes the poor performance to low effort on behalf of the employee (internal, unstable and global¹) and, as a result, develops low evaluations of the person, and withdraws rewards or punishes the subordinate (for example, through fringe benefits, pay, recognition or promotion)² The supervisor may also categorise the subordinate into an outgroup, which, in turn, will negatively affect the supervisor's future attributions - and expectations - about the person's performance, and so a second negative cycle is set up. For the employee, the manager's poor expectations and punishing behaviour will act as another negative work experience, which, given the individual's pessimistic attributional style, will be attributed to internal, stable and global factors, and so the downward spiral of hopelessness and failure will be perpetuated, leading ultimately to resignation or dismissal.

Support for the research paradigm can be gained from number of sources. A selection is presented below: first, studies that provide general support for the model or sections of it, and second, studies that provide specific support for individual linkages in the model.

- Primary support comes from research literatures of the three theories from which the model is derived. Empirical evaluations of Weiner's theory, for example, provide support for Linkages 1,2,3,4, those pertaining to the Abramson et al. theory endorse Linkages 1,2,3 with indirect support for Linkage 4 (lowered response initiation), and tests of Martinko & Gardner's theory provide general support for Linkages 7,8,9,10,11. These empirical studies were outlined in Chapter 2.
- Dorfman & Stephan (1984) provide a second source of support. These authors tested the inter-relationship between attributions, expectancies, satisfaction, effort and performance in a work setting using a business decision-making simulation. Their results indicated that subjects' performance on the task influenced the type of attributions made, which in turn had a direct influence on their effort-reward

¹ Martinko & Gardner's model employs only the locus and stability causal dimensions. However, a strong case can be made for adding the globality dimension, because work environments involve a number of situations, and an indication of cross-situational consistency is informative.

² In Weiner's model, effort is also conceived as controllable. Behaviour that is perceived by the manager to be under the employee's volitional control would constitute a further reason for withdrawing rewards or punishing poor performance.

expectancies and their satisfaction. The effect of attributions on effort, however, was indirect, mediated through satisfaction and expectancies. The relationship between attributions and performance was also indirect, it was found to be mediated through satisfaction and effort. The results of Dorfman & Stephen's study provide empirical support for the model proposed for this research, particularly Linkages 1,2,3,4 and 6.

- A third source of general support comes from Parsons, Herold & Leatherwood (1985), who examined the role of supervisor feedback and employee attributions on work satisfaction and turnover. Their results demonstrated that, consistent with the "self-serving bias" (Miller & Ross, 1975), positive supervisor feedback was related to internal attributions by employees for their job performance, and negative feedback was related to external attributions. Employees' internal attributions also related positively to work satisfaction, whilst turnover correlated positively with external attributions (specifically luck), and negatively with supervisory positive feedback. In related research, Koestner, Zuckerman & Olsen (1990) demonstrated that employees' attributional style moderated the effect of supervisors' feedback on intrinsic motivation. These results provide general support for the model in terms of its link between supervisors behaviour, employee attributions, work attitudes and behaviour, and specifically for Linkages 3,5 and 11.
- Lastly, a tightly-executed empirical study by Judge & Locke (1993) provides general endorsement for the model, particularly Linkages 3,4,5. Their results showed that employees' dysfunctional attitudes, as measured by the Dysfunctional Attitude Scale (Weissman & Beck, 1978) an instrument commonly used in cognitive therapy, negatively affected their job satisfaction and subjective well-being, and were positively related to job and work avoidance (including quitting). The authors concluded "*Employee well-being and job satisfaction may be increased by reducing the degree to which employees think dysfunctionally about their jobs and lives in general*" (p487). They speculated that cognitive therapy might be an appropriate vehicle for effecting such a change in attitudes, although, unfortunately, they took their suggestion no further than to note clinical studies demonstrating the efficacy of cognitive therapy in changing dysfunctional attitudes. Their suggestion, nevertheless, has relevance for this research.

Support for individual linkages in the paradigm can also be gained from the research literature

- The relationship between individuals' self-esteem on the one hand, and persistence and effort on the other (Linkage 4) has been documented in a number of studies, such as Felson, 1984. People with high self-esteem evaluate their past performance and predict their future performance more positively, which in turn results in higher motivation (Vasta & Brockner, 1979, McFarlin & Blascovich, 1981)
- The link between self-efficacy and persistence (Linkage 4) is also well-documented (e.g. Bandura, 1977). Studies have also confirmed a direct effect of self-efficacy on performance (e.g. Locke et al., 1984), as well as links with work-related behaviour (Sadri & Robertson, 1993)
- For some time, psychologists have acknowledged that high expectations of success prompt people to work longer and harder on tasks than do low expectations of success (Linkage 4), e.g. Atkinson, 1964, Mischel, 1973
- A study by Hochwater et al. (1993) confirmed the link between persistence and quitting for both managers and employees. Their results showed that, under conditions of high job stress, intention to leave increased as level of persistence decreased (Linkage 5)
- Meta-analyses of studies investigating the job performance-employee turnover relationship (Linkages 1-5) show that turnover is higher among poor performers. McEvoy & Cascio (1985) examined 34 studies and found a mean corrected correlation of -0.28. However, the relationship varies according to whether the turnover is voluntary or not. Bycio et al. (1990) in a meta-analysis of 45 studies found an average correlation of -0.17 between voluntary turnover and performance, and -0.52 between involuntary turnover and performance
- That persistence and effort lead to high performance (Linkage 6) has been confirmed in many studies. Locke & Latham (1990), whilst promulgating an alternative theory of work motivation based on goal-setting theory (their High Performance Cycle) provide evidence of this link
- Work by Ashkanasy (1989, 1995) has shown that effort attributions by managers for poor subordinate performance are associated with negative expectations and punitive responses. Ashkanasy's research confirms the link between managers' attributions for subordinates' behaviour and their expectations about future subordinate performance

(Linkage 9), as well as their response to the subordinate in terms of rewards and punishments (Linkage 10)

- Numerous years of research in operant conditioning and social learning theory have demonstrated the effect of reward and punishment on motivation, behaviour and performance (Linkage 11), e.g. Bandura (1977, 1986). In the world of work, the most typical rewards and punishments used in relation to performance are pay, promotion and recognition (Locke & Latham, 1990)

In sum, empirical evidence from a variety of sources provides support for the model developed for this research. Attributions have been shown to influence a number of psychological and behavioural responses, both directly and indirectly. The model demonstrates how an employee's self-derogating attributional style, when coupled with negative experiences at work (including unfavourable manager evaluations) can result in a self-defeating pattern of causal attributions, performance expectations, effort, task performance and subsequent causal attributions. The key question, of course, is how to arrest the downward spiral. We turn now to a model of intervention.

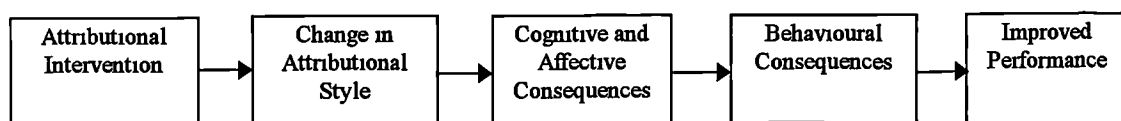
4.3 THE ATTRIBUTIONAL INTERVENTION MODEL

Intervention into the negative self-defeating cycle is possible at a number of points. For example, the manager can, with the employee, evaluate his/her work goals or targets to ascertain whether they are too high, and/or provide coaching or training for the employee to remedy any knowledge, skill or ability deficits (including communication, decision-making and social skills, in addition to work-related skills) in order to improve performance (This would approximate an intervention at Linkages 6 and 11 in the model). Conversely, attributional training can be provided for the managers to help them to identify and understand the attributional styles of their subordinates, so as to avoid using motivational or feedback techniques that may lead to self-deprecating biases on the part of the employee (Linkage 8). Helping managers to become aware of their own attributional biases, and to reduce rating errors in performance evaluations comprises another intervention (Linkages 7, 8 and 9). Lastly, attributional training can be provided for employees, to assist them to evaluate and modify their attributional

style, in order to change unrealistic attributions for success and failure, and the psychological and behavioural sequelae. It is on the latter intervention, attributional training for employees (Linkages 1 and 2) that this research concentrates.

Attributional interventions have not been employed to date in organisational settings. Due to the uncharted nature of the territory, therefore, an attributional intervention model has been developed to guide the process, particularly the selection of dependent variables (see Chapter 1 Taylor, 1981, Ilgen & Klein, 1989a). The model (Figure 4.2) hypothesises that the attributional training programme will assist employees to evaluate the veridicality and functionality of the attributions they make for situations at work, as well as the more general attributional style from which the specific attributions originate, and, if necessary, change their attributional style. A change in employees' attributional style, it is predicted, will result in more favourable attributions about the self, the world, the future. This, in turn, will lead to cognitive and affective outcomes, such as enhanced success expectancies, self-esteem, self-efficacy, motivation, job satisfaction, and reduced psychological distress and intention to quit, as well as behavioural outcomes, including greater effort, more active attempts to succeed especially during adversity, enhanced performance and success.

Figure 4.2 Occupational Attributional Intervention Model



In the sections to follow, the occupational attributional intervention, the independent variable in the model, will be outlined, and each of the dependent variables will be described, together with a rationale for its choice. This will lead to the delineation of hypotheses from the model.

A) INDEPENDENT VARIABLE

Two occupational attributional change programmes were evaluated in this research. The first was developed by Martin Seligman and his colleagues at the University of Pennsylvania, the second by me. Each will be outlined in detail in the succeeding two chapters, but at this juncture, some general points about the programmes are warranted. The aim of the interventions is to help employees first to identify, and then to modify, their attributional style. In contrast to attributional interventions used in other domains, persuasion is not used to stimulate attributional change, both interventions allow participants to draw their own conclusions about their individual attributional styles, and the need for change. The interventions are designed to help participants look at the situational information carefully, make realistic estimates of their abilities, personality traits, the amount of effort they expend, and attempt to make more veridical attributions for events.

Both interventions are based on the principles of cognitive therapy. The second is also lodged within a framework of organisational training and development. Rather than training subjects to make specific attributions, such as lack of effort for failure (as has also been the form of previous attributional programmes), these two interventions provide training in a number of cognitive therapy strategies, with the aim of facilitating attributional change. Cognitive therapy helps clients to decatastrophise events: if the event is perceived as less aversive, the attributional processing might not take place at all, or it might follow a different path. Further, specific cognitive therapy strategies, such as searching for evidence and generating alternative explanations, help to augment the situational information, or make it more salient, thereby assisting individuals to eliminate "*errors of omission and commission in the formation of causal ascriptions*" (Weimer, 1988). Cognitive therapy techniques can also help to change the meaning of the cause, or its location in dimensional space. For example, by looking for disconfirming evidence about the permanence of ability deficits, the client may accept that his/her lack of ability is rectifiable by taking a training course. Cognitive therapy can also assist individuals to modify their work behaviour, by, for instance, carrying out behavioural experiments in the workplace.

However, attributional training is not a substitute for work-related skills and abilities. The attributional interventions were both designed for use alongside, not instead of, skills-based programmes (cf Anderson, 1983b). This issue was negotiated very carefully in advance with each of the organisations with whom the research was conducted. As subjects become more adept at making veridical attributions, when skill or strategy deficits are discovered, they are encouraged to take action to redress them, by, for example, asking for help from their manager, undertaking training etc.

Both are group interventions, which has several advantages. Apart from economies of scale and the fact that groups are a familiar and effective model of training in organisations, most importantly for attributional interventions, groups promote the use of consensus information, thereby helping individuals to form or alter their attributions. As Forsterling (1986) notes

“Information about the behaviour of others who are in similar situations as oneself is important in order to decide whether oneself or external circumstances are responsible for an effect” (p282)

However, changes in attribution style do not come easily

“Years of practice have gone into developing their current style. Mountains of evidence have been collected to support it” (Layden, 1982, p73)

What is required for a change attributional style is the willingness on the part of individuals to try new ways of perceiving events, the acquisition of strategies, and, similar to the development of any new habit, a great deal of practice. These factors were recognised in the development of the attributional interventions. Furthermore, for change to be really effective, and indeed long-lasting, participants have to learn to attribute improvement to themselves. As Brewin (1986) asserts

“If success is regarded as due to luck or the therapist’s influence, improvement is unlikely to be maintained because expectations of success will remain low, or will be reduced when the therapist is no longer present” (p240)

Self-attribution for improvement can be achieved in a number of ways through self-observation (Sonne & Janoff, 1982), cognitive rehearsal, and by the trainer/therapist modelling and encouraging the group to recognise self-attributions. These techniques were incorporated into the interventions in order to ensure that delegates attributed improvements to themselves.

Lastly, in contrast to previous attributional change programmes, both attributional interventions were designed for an organisational context. The structure and policies of the organisation, its attributional culture, the leadership, the appraisal and reward systems, and the nature of the job itself all impact upon the individual and the attributions made for work events. Such factors can constrain the process of attributional change, as well as its maintenance. The occupational setting is thus a difficult one in which to work (see Chapter 1), particularly to attempt to bring about psychological and behavioural change. With these considerations in mind, techniques to enhance the transfer of training to the job and to ensure its maintenance were incorporated into the infrastructure of the UK programme during its development, and were added to Seligman's programme before evaluation.

In summary, the independent variable in the model is an occupational attributional intervention. It is unusual in two regards: not only is it the first of its kind for the work-place, the methods by which the attributional change is effected are different from those commonly used. The use of cognitive therapy, to date, has been confined to clinical domains. In this intervention, it is uniquely integrated with organisational training and development principles to assist employees to enhance their attributions for work-related events.

B) DEPENDENT VARIABLES

The Occupational Attributional Intervention Model (Figure 4.2) predicts that the outcomes of the attributional programme can be considered in four general categories:

- 1 changes in attributional style
- 2 cognitive and affective outcomes
- 3 behavioural outcomes
- 4 performance

The second and third categories incorporate a number of different elements. Together, the variables in all four categories form the dependent variables in the model. Each will be described, along with a rationale for its inclusion in the model.

1. Attributional Style

Defined as “*the tendency to make particular kinds of causal inferences rather than others, across different situations and over time*” (Alloy, Hartlage & Abramson, 1988, p43), attributional style is distinguished in the RLH theory from attributional content, which refers to the particular attribution an individual makes for a specific event, such as ‘ability’ or ‘luck’ Metalsky & Abramson (1981) suggest that, particularly when reality is ambiguous, people project and impose their attributional style The central notion is that individuals differ in the systematic ways they explain good and bad events, and attributional style differences contribute to motivational, performance and affective reactions to various life experiences (Anderson et al., 1988) Internality, stability and globality are conceptualised as theoretically distinct components of attributional style Research has supported the validity of the attributional style construct (see Kent & Martinko, 1995a, for a review of this research), although its cross-situational consistency has been questioned Weimer (1985a), for instance, reported that a global/specific dimension did not emerge in a single study he reviewed Generally, researchers have found that the construct has a moderate level of specificity (Cutrona, et al., 1985, Anderson et al , 1988), that is, individuals demonstrate attributional consistency within narrower categories This finding provides a conceptual basis for exploring attributional style associated with work-related issues, and for developing specific measures of occupational attributional style

According to the RLH theory, individuals with a pessimistic attributional style are likely to suffer affective, cognitive, self-esteem and motivational deficits associated with helplessness when confronted with bad life outcomes At work, this has been shown to translate to reduced effort and persistence, poor performance, and quitting (e.g Seligman & Schulman, 1986) Conversely, an optimistic attributional style (internal, stable, global explanations for good events, and unstable, specific explanations for bad events) has been shown to predict recovery from depression (Needles & Abramson, 1990) and, in the occupational field, to be significantly correlated with job satisfaction, performance and success at work (Furnham et al, 1992, Corr & Gray, 1995c)

2. Cognitive and Affective Outcomes

The Attributional Intervention Model predicts that, as a result of the changes in attributional style, improvements will occur in a number of psychological variables including self-esteem, motivation, job satisfaction, self-efficacy, success expectancies and psychological strain

Self Esteem

Both the RLH theory and Weiner's attributional model of achievement motivation highlight self-esteem, contending that it is uniquely determined by the internality attributional dimension. Thus, individuals who attribute positive events to internal factors are predicted to have higher self-esteem, whereas failure attributed to internal factors leads to lower self-esteem. Whilst there is disagreement about the pre-eminence of attributions in the formation of self-esteem (e.g. Brewin & Furnham, 1986), there is nevertheless consensus that attributions are involved in the development of self-esteem, and furthermore, that self-esteem is an important moderating variable on other outcomes. For example, self-esteem has been shown to be an effective buffer against stress (Cohen & Hoberman, 1983), and to be related to high motivation (Vasta & Brockner, 1979, McFarlin & Blascovich, 1981), persistence and effort (e.g. Felson, 1984). It has also been proposed that changes in self-esteem are related to perceptions of control: feelings of being in control contribute to increases in self-esteem and self-worth (Smith, 1993). Control is central to the attributional models of both Weiner and Abramson et al. For all these reasons, self-esteem is an important dependent variable in this research.

Motivation

As attributional theory had its origins in the field of motivation (Weiner, 1974, 1979), the effect of the attributional change programme on subject's intrinsic motivation is of primary interest. Intrinsic motivation is a measure of the degree to which individuals want to work well in their jobs in order to achieve personal satisfaction and task success, rather than external satisfactions, such as pay and working conditions (Warr, Cook & Wall, 1979).

Theories of intrinsic work motivation abound, some with more empirical validation than others. However, it should be noted that “*few if any of the theories were developed to account specifically for work motivation. Nearly all are general motivation theories applied to the world of work, and supposedly applicable to all individuals*” (Furnham, 1992, p128). Work motivation theories can be categorised into three general groups: need theories, reinforcement theories and cognitive theories. Two of the three groups of theories relate to intrinsic motivation: need theories which suggest that people have needs and motives which influence behaviour and are the major determinants of performance (e.g. Deci’s Intrinsic Motivation Theory [Deci & Ryan, 1980], McClelland’s Need for Achievement and Power [McClelland, 1987]), and cognitive theories which focus on individuals’ beliefs, values and intentions as the causes of motivation (e.g. Equity Theory [Adams, 1963, 1965], Expectancy Theory [Vroom, 1964], Goal-setting Theory [Locke, 1968, Locke & Latham, 1984], Social Learning Theory [Bandura, 1977] and Attributional Theory [Weiner, 1985a]).

The plethora of theories has given rise to a certain ambiguity in the conceptualisation of the motivation construct (Cook et al., 1981): the same characteristic is conceived by some as a stable personality factor (similar to job involvement), and by others as a situationally-determined response to the job. This research employs the latter sense, the social learning approach to motivation. The link between intrinsic motivation and work-related outcomes such as effort, persistence, performance and turnover has been extensively researched and adequately documented (Guest, 1992b, Locke & Latham, 1990).

Job Satisfaction

Initially, consideration was given to including organisational commitment, defined as the bond or linking of the individual to the organisation (Mathieu & Zajac, 1990), in the model, as links have been demonstrated with performance and quitting, and it has been a focus of research interest in the 1990s. However, further reading indicated that its status is unclear - some studies show that it is a mediating variable between job satisfaction and intention to quit (Williams & Hazer, 1986), others suggest it is an antecedent of job satisfaction. Either way, strong correlations have been found between job satisfaction

and organisational commitment (Curry et al., 1986) which diminishes its explanatory value in this model. Further, job satisfaction has been shown to have more independent explanatory power with respect to labour turnover (specifically, intention to quit), and a stronger link with performance than has commitment (Guest, 1992a) For these reasons, job satisfaction was used in favour of organisational commitment

Job satisfaction is usually defined as an affect, the feeling of like or dislike about a job or facets of it (Guest, 1992a) It can also be viewed as the result of an appraisal of the job against one's value standards if the job is perceived as fulfilling or facilitating the attainment of one's values, satisfaction is experienced (Locke, 1984) Job satisfaction has been shown to be primarily a function of the degree of perceived control and autonomy at work (Guest, Peccei & Dewe, 1992), which fits nicely with attribution theory, as well as the model for this research Originally, it was assumed that high satisfaction led to high productivity, but this association has failed to be consistently supported in the literature (Podsakoff & Williams, 1986) Typically, the correlation between job satisfaction and performance has been weak, usually in the region of .14 (Iaffaldano & Muchinsky, 1985) Henne (1986) reported six categories of response to dissatisfaction (1) avoidance (late arrival, absenteeism, quitting), (2) complaint (to manager, company), (3) formal protest (grievance, lawsuit), (4) illegal acts (theft from company, sabotage), (5) passive-aggressive response (reduced output, poor quality work, information withheld), (6) substance abuse (drugs, alcohol) The category most frequently related to dissatisfaction is the first, avoidance, especially quitting the job This pattern of response has been confirmed in other research (e.g. Lee & Mowday, 1987, demonstrated that job satisfaction explained 12.4% of the variance in intention to quit³) Thus, consistent with the model developed for this research project, job satisfaction is linked with quitting

Self-Efficacy

Success expectancies and self-efficacy expectancies are central to the attributional intervention model, and both can be explained through this variable According to self-

³ It is recognised that this is largely US data and that in the UK labour market, where unions are more common and there is less emphasis on individualism, the relationship may not be so strong.

efficacy theory (Bandura 1977, 1982), all forms of behaviour change operate through a common mechanism. the alteration of the individual's expectations of personal mastery and success. Two types of expectancies influence behaviour outcome expectancies, the belief that certain behaviours will lead to certain outcomes (this is similar to Weiner's notion of success expectancies), and self-efficacy expectancies, the belief that one can successfully perform the behaviour in question. Bandura proposes (and experimental research has confirmed) that self-efficacy expectancies determine the initial decision to perform a behaviour, the effort expended, and the persistence in the face of adversity (Bandura, 1977, 1982). Further, a strong relationship is consistently reported between self-efficacy and task performance (Bandura, 1982, Locke et al., 1984), and recent studies have reported links with work behaviour. (For example, a meta-analysis conducted by Sadri & Robertson (1993) of 21 occupational studies found an overall positive correlation of .4 with work performance.) Self-efficacy is developed through personal mastery experiences which the individual attributes to skill, rather than to chance or luck (Bandura, 1986). Thus, attributions play a role in the development of self-efficacy beliefs.

Psychological Strain

Despite the centrality of depression in the Abramson et al. model, it was decided that this variable was not suitable for the present model with its occupational application. In particular, the way depression is usually measured in attributional studies, for example, with the Beck Depression Inventory (Beck, 1978) was deemed inappropriate. A non-clinical approximation of the hopelessness and depression symptoms predicted by the attributional models was needed. Negative affectivity encompassing anxiety, depression, and hostility such as measured by the Multiple Affect Adjective Checklist (Zuckerman & Lubin, 1965) was considered. However, studies have indicated that this construct does not seem to be related to control (Taylor et al., 1991), a variable which, according to some of the more influential attributional theorists (e.g. Weiner, 1988, Anderson, 1983a), is a mediator in the attributional process. In contrast, psychological strain, a potential precursor to depression, is conceptually similar to the deficits predicted by the attributional theories. At the same time it has relevance and credibility in occupational domains, as well as validity as a construct (see, for example, Wall & Clegg, 1981).

Psychological strain has been used as an outcome variable in many occupational studies and a good deal of normative data has been generated. For these reasons, it was selected as an important dependent variable for the present research.

This section has profiled a number of cognitive and affective variables hypothesised to change as a result of the attributional intervention. Cognitive and affective changes can fade quickly, however. A more stringent test of an intervention is whether the psychological changes transfer to actual changes in behaviour. The model predicts that two specific behavioural changes will occur as a result of the intervention: an increase in work effort and persistence, and a decrease in quitting. These are outlined next.

3. Behavioural Outcomes

Effort

Seligman & Schulman (1986) note that the learned helplessness model (Seligman, 1975) predicts that uncontrollable failure will be followed by lowered response initiation. In work situations, this translates into reduced effort and lower persistence. The RLH model (Abramson et al., 1978) specifies that individuals who have a pessimistic attributional style, who tend to blame themselves and expect failure to be pervasive and long-lasting, will be more vulnerable to response initiation deficits when failure is encountered, than individuals with a positive attributional style. In organisational research, this may be exhibited as reduced persistence and work effort (see, for example, Dorfman & Stephen, 1984).

Quitting

Quitting is a central helplessness deficit (Seligman & Schulman, 1986). According to the RLH model, pessimistic attributional style predisposes giving up when failure, rejection or other negative events occur. Neither the pessimistic attribution style nor the negative events are necessary or sufficient conditions, but their interaction increases the likelihood of giving up. The occupational equivalent of giving up is quitting. There are a number of theoretical models of employee turnover, for example, Mobley (1982),

Price & Meuller (1986), Steers & Mowday (1981) Mobley's turnover model links job dissatisfaction to quitting, but with a number of intervening steps such as thinking of quitting, considering alternative jobs and job seeking. The key step before actual quitting, however, is the formation of job withdrawal cognitions. Numerous empirical studies of employee turnover have been undertaken (A literature search I conducted identified 296 published studies since 1987). In general, the results have indicated that commitment and job satisfaction are moderately related to labour turnover, but only indirectly through their influence on intention to leave. The latter has been shown to be the best predictor of actual labour turnover (Guest, 1992a). Research addressing the practical consideration of how employee turnover can be reduced, however, has been less prevalent (only 16 studies since 1987). Interventions have tended to focus on employee selection (e.g. pre-employment screening, realistic job previews) or on the performance of the job (e.g. job enrichment programmes, such as flexible scheduling, unit self-management and quality circles). Training interventions to reduce employee turnover are scarce.

3. Performance

“Organisations are concerned with the adequacy of their members' performance, but often find it difficult to act on that concern. It is not that there is a lack of means of assessing performance. Research and practice have identified many methods of assessing performance. These include measures of output (quality, quantity and value), withdrawal (absenteeism, turnover and tardiness), and disruptions (accidents)” (Guzzo & Gannett, 1988)

According to these authors, the means of assessing work performance are quite sophisticated, but its substance is impoverished. Part of the problem lies in the lack of a generally applicable set of standards that can be used to assess performance for all jobs in all settings. Instead, criteria have to be derived anew for each job in each situation. This, of course, can also be advantageous. Specificity of performance criteria promotes accuracy in appraisals, and specific rather than general feedback is a more powerful stimulus to increased performance.

Job performance is mediated through effort, although it is influenced by a range of other factors as well (Guest, 1992b). Two benchmarks of effective performance are

commonly used maximally attainable performance and minimally acceptable performance (Guzzo & Gannett, 1988). Minimally acceptable performance refers to a threshold below which performance in an organisation cannot be maintained without incurring the risk of penalty. It can be redressed non-punitively through training or transfer. Maximally attainable performance, in contrast, is the highest level of performance achievable. Facilitators and inhibitors move performance towards these two end points. Inhibitors include personal characteristics such as abilities, motives, values and personality traits (to these I would add the employee's attributional style), as well as situational characteristics such as job characteristics, organisational climate, physical work conditions, time constraints and incentive systems. Studies have shown that job satisfaction declines as situational constraints increase, and that weaker constraints are associated with higher performance and lower rates of turnover (O'Connor et al., 1984).

Guzzo, Jette & Katzell (1985) provide a taxonomy of practices and conditions which facilitate work performance in organisations. These include recruitment and selection (including realistic job previews), training and instruction, appraisal and feedback, management by objectives, goal setting, financial compensation, work redesign, decision-making techniques, supervisory methods, work rescheduling, socio-technical or organisational development interventions. A meta-analysis of 98 studies conducted by the same researchers showed that the collective effect size of such programmes on worker productivity was .44. Training and goal-setting programmes had the most powerful effect, followed by socio-technical systems design, with job previews having a negligible effect. Differences in effect, however, were moderated by the size and type of organisation, and type of worker: greater effects were found in smaller organisations, government rather than profit or non-profit private organisations, and sales and managerial/professional rather than blue collar and clerical workers. These results indicate that psychologically-based interventions can have a significant impact on worker productivity (Guzzo et al., 1985). To my knowledge, interventions to enhance performance at work through attributional change have not yet been used. Yet, Seligman & Schulman (1986) report significantly greater sales performance for insurance salesagents with a positive attributional style. The attributional intervention

model predicts that sub-threshold performance can be improved through attributional training

In summary, this section has described and debated a number of dependent variables for the research. As depicted in the Attributional Intervention Model, they were considered in four categories: changes in attributional style, cognitive and affective outcomes, behavioural outcomes and performance. Specific outcome variables were selected for the occupational attributional intervention as a result of this process, which leads now to an outline of the hypotheses for the research.

C) HYPOTHESES

It was hypothesised that, as a result of participating in the attributional training programme:

1. Subjects would experience significant improvements in attributional style (for both positive and negative events)
2. The changes in attributional style would lead to improvements in
 - * motivation
 - * self-efficacy (including success expectancies)
 - * job satisfaction
 - * self-esteem, and
 - * psychological strain
3. The psychological changes would transfer into behavioural changes on the job, specifically to increased persistence and effort, and reduced quitting
4. The psychological and behavioural changes would result in improvements in performance

Having outlined the components of the model and the hypotheses emanating from it, we turn now to a consideration of research design and methodology to test the occupational attributional intervention model.

4.4 RESEARCH DESIGN AND METHODOLOGY

There are a number of ways in which the present research model can be tested. As highlighted in the previous chapter, the most valid way is through a full experimental design employing an experimental and control group, random allocation to groups and pre- and post-training measures. Even more rigorous is a design that includes, in addition to the pre- and post-intervention measures, a longer-term follow-up measure to assess maintenance of effect. (Many training programmes are able to demonstrate an effect by the end of training, but to show that the effect also transfers to the job and persists for a considerable length of time is not so easy). However, experimental designs are difficult to implement in organisational settings. The structures, cultures, policies and practices of organisations impose constraints on how research is conducted, which may reduce its rigour and precision. For example, random allocation of employees is difficult to achieve within organisations consisting of self-managed units. Follow-up data is almost impossible to collect in companies which have a large turnover of staff or in which staff are moved around a lot. There are the human factors too, for example, the attitudes of key people in the organisation, which may negatively influence the research design. It is hard to convince management of the need for a control group, for instance, when there may be no particular benefit for these employees, (Bramley, 1995, reports that senior managers of an organisation in which he was asked to implement a new management development system dismissed the idea of a control group as 'ludicrous'). As a result, less robust designs are commonly used in organisational research. Typically, they omit the use of a control group or are merely correlational in nature. As outlined in the previous chapter, these designs involve a number of uncontrolled sources of error which reduce the validity of the research and one must be wary of the conclusions drawn from them. For example, without a pre-test, one cannot be sure that change has occurred, and without a control group, it is impossible to infer that any changes seen were due to the training. Such quasi- or non-experimental designs do not allow questions of training effectiveness and generalisability to be answered with confidence, nor do they permit replication.

In spite of the difficulties involved in using experimental designs in organisational

research, a full experimental design was adopted in this research. In each of the three studies undertaken to test the research model, a control group was employed, subjects were randomly allocated to groups, and a variety of measures were taken pre- and post-intervention to assess training outcomes. Furthermore, in each case, follow-up measures were taken to assess maintenance of effect in the longer term.

Subjects were, consistent with the research model, individuals likely to be experiencing repeated failure. long-term unemployed professional people (in the third experimental study) and insurance sales agents (in the first two studies). In insurance selling, nine out of ten approaches to prospective clients and three out of four sales presentations fail (Life Insurance Marketing and Research Association [LIMRA], 1993). Similarly, unemployed professionals who have been job-seeking for over twelve months have encountered a significant number of knockbacks and failures. These two groups therefore fulfilled the conditions of the research model. Furthermore, they were sufficiently different from each other to provide a rigorous test of the attributional intervention.

RESEARCH MEASURES

Training evaluation theory identifies four levels of training outcomes: trainee reaction, learning/attitude change, behaviour, performance. It stipulates that measurement is necessary at all four levels to gain a sound evaluation of a programme. Measures were chosen for this project to cover each of the four levels of evaluation. To avoid mono-method bias, different methods were used for the data collection, in some cases, data were gained from the central databases of the organisations involved, in many cases, self-report instruments were used. Brevity, ease of completion and literacy level were the main criteria used in the selection of self-report scales.

1. Performance

Productivity

Measuring employee productivity can be difficult. Some jobs provide clear measurement criteria, but in other cases, such as where people work in interdependent teams, or

where performance criteria are non-existent (e.g. the clergy), it is more difficult to determine the productivity of individuals (Furnham, 1992). Often, subjective assessments are employed. Nonetheless, objective indices of performance were used in this research. Locke & Latham (1984) specify three categories of performance outcome:

- units of production or quality (amount produced, number of errors)
- money (profits, income, sales)
- time (job attendance, lateness in meeting deadlines)

In this research, units of production (number of sales made or jobs gained), as well as money (the value of sales made, commission earned) were used as measures of performance.

2. Behaviour

Effort

Self-monitoring instruments were designed to assess work-related effort. They were closely linked to the subjects' role so that they acted as work aids and were not intrusive. Different instruments were developed for each group of subjects (see experimental studies in Chapters 5, 6, and 7). In each case, a task analysis of the job role was performed and the monitoring instrument was developed to reflect the key components of the role. Where possible, the instruments were tied in with other monitoring activities used in the job.

Employee Turnover

Turnover data (resignations, dismissals, promotions) were collected from the organisations involved in the research project. They were accessed from the organisations' central databases, thereby ensuring objective and accurate data.

3. Reaction

A participant reaction questionnaire was given immediately after the final training session of each course. The questionnaire (Appendix I) contained items pertaining to subjects'

course expectations, the course aims, content and structure, the delivery of training and the course environment

4. Psychological Outcomes

Intention to Leave

Because turnover intentions have been shown to be the best single predictor of actual turnover (Tett & Meyer, 1993), and due to the vagaries of organisational research (e.g. data promised by organisations not always forthcoming, or of poor quality), this variable was measured in addition to actual turnover. Intention to leave is regarded as a much simpler measure than actual termination because it is not cluttered by uncontrollable external factors (such as job availability) which influence the decision to leave (Nicholson et al., 1977). Three items, used in a large research study in British Rail by Guest, Peccei, Thomas (1993), were employed. The items were

- This job has not met my expectations
- I sometimes feel like leaving this job for good
- All things considered, I would like to find a comparable job in another organisation

Psychometric analyses undertaken by Guest et al. indicate that the items have good internal consistency (coefficient alpha = 0.72), and they cluster into one factor.

Self-Esteem

Self-esteem is most commonly measured by self-report questionnaire. However, several other techniques have also been used, including beepers self-reports (a repeated measures technique, whereby the subject indicates, when signalled, words from a list of adjectives that describe her/his feelings), ratings by others (including peer ratings and observer ratings using behavioural checklists and Q-sorts), interviews (rarely used except clinically) and projective instruments such as parts of the Thematic Apperception Test. A comparison of the various measures by Demo (1985) substantiated the validity of traditional self-report inventories, such as the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and Coopersmith's (1967) Self-Esteem Inventory.

Rosenberg's (1965) Self-Esteem Scale was chosen as being most appropriate for this research study. It has been used extensively in both occupational and clinical research, and its validity and reliability have been supported by a number of studies (e.g. Wylie, 1974). It is a unidimensional scale measuring self-acceptance⁴ and is self-administered, taking approximately 5 minutes. The scale consists of five positively- and five negatively-worded statements, with which subjects are asked to agree or disagree on a four-point scale (from strongly agree to strongly disagree), although the items are scored only as agreement or disagreement.

Motivation

Measurement of job motivation has typically been undertaken in two ways (Cook et al., 1981). The first is by conventional scales consisting of a number of items, each of which is a partial index of the construct and interrelates with the other items. In general, these scales are short, easily completed, with at least reasonable face validity and psychometric properties. The second path focuses on expectancy theory and has not given rise to conventional scales. These measures are usually study-specific, and are derived by having subjects rate particular outcomes (determined by the focus of the study and the sample involved) for their expected occurrence (E) if effort is expended, and for their valence (V). The product of the ratings is summed across the various outcomes to gain an index of motivation. Thus

$$\text{Motivation} = \sum_1^n (E_1 \times V_1)$$

Cook et al. (1981) caution that the reliability and validity of measures of job motivation based on expectancy theory cannot be evaluated outside their specific context, or by the use of conventional psychometric criteria, and thus their legitimacy must reside in the axioms of the theory itself. I would suggest that it can also be assessed by the meaningfulness of the results.

In this research, both measures of motivation were used in different studies. The Warr, Cook & Wall (1979) Intrinsic Motivation Scale was chosen as the conventional

⁴ Some factor analyses have revealed two separate factors roughly pertaining to positive and negative self-esteem (Demo, 1985)

motivation scale. It is described by its authors as a short, robust scale for employees of modest educational attainment. It consists of 6 items, such as "I feel a sense of personal satisfaction when I do this job well", which are rated on a 7-point dimension and summed. The psychometric qualities of the scale, assessed in two studies of male blue-collar workers, were reported as $\bar{x} = 35.13$ (s.d. 5.5) and $\bar{x} = 36.82$ (s.d. 5.5), with a coefficient alpha of 0.82 in both instances, and a test-retest correlation of 0.65. Principal components analysis with varimax rotation showed that all scale items loaded on to a single factor, and were factorially independent from other measures employed in the research (Cook et al., 1981).

The measure derived from expectancy theory, in contrast, was developed for the specific study in which it was used. It is outlined in detail in Chapter 7.

Psychological Strain

The General Health Questionnaire 30 (Goldberg, 1978), an instrument used extensively in the detection and estimation of non-psychotic psychiatric illness, was used to measure subjects' mental health in this research. It incorporates items pertaining to depression, anxiety, somatic symptoms and social dysfunction. The scale has been widely validated (see Goldberg [1978] for data from 29 validity studies), and has the benefit of having been used extensively in occupational studies, thereby yielding considerable comparative data (e.g. Wall & Clegg, 1981a).

The use of the GHQ 30 also allows a further dimension of participant mental health to be measured: the existence of chronic psychological illness. Two Australian researchers (Goodchild & Duncan-Jones, 1985) provide an alternative scoring of the GHQ 30 which picks up indicators of chronic illness, as distinct from acute or episodic conditions gauged by the regular scoring of the GHQ 30. It is calculated by adding to the regular GHQ30 score the 'no different from usual' response to negative items. Goodchild & Duncan-Jones provide evidence that this 'chronicity scoring' of the GHQ 30 is correlated with measures of neurotic illness such as the Present State Examination and the Eysenck Personality Inventory. An added advantage is that the GHQ is less easy to fake if scored for chronicity, and the scores are more normally distributed than the regular scoring of

the GHQ. The two types of scoring complement each other, and both were used in the present study.

Job Satisfaction

A plethora of job satisfaction scales exist. Cook et al. (1981) reviewed 46 of them, which they suggest can be categorised into two groups:

- scales of overall job satisfaction, which are measured by summing respondents' reactions to specific features of the job, or by general evaluative reactions such as "how much do you like your job?", or by a combination of both
- measures of specific satisfactions, which typically focus on discernible features of a job, such as pay, working conditions, or the supervisor, yielding separate scores for satisfaction with each feature

It was decided that a measure of both specific and general job satisfaction would be most appropriate for this research. The Overall Job Satisfaction Scale (Warr, Cook & Wall, 1979) was chosen to measure satisfaction with specific features of the job, as it is a short 15-item scale designed for individuals of "modest educational attainment". Respondents are asked to indicate on a seven-point scale their satisfaction or dissatisfaction with 15 facets of their job, incorporating extrinsic and intrinsic features, such as the physical work conditions, job security, the opportunity to use one's abilities. An unweighted total is computed (ranging from 15 to 105), with a higher score indicating higher job satisfaction. Normative data is reported by the authors on two samples of blue-collar employees in the United Kingdom ($n=200$ and $n=390$). The combined mean was 70.75 ($sd=15.42$), with coefficient alphas for the two samples of 0.85 and 0.88 respectively, and a test-retest correlation across 6 months of 0.63 (Warr, Cook & Wall, 1979). The scale has been used extensively in many other occupational settings, for example Clegg & Wall (1981) used it with employees in different jobs within an engineering company ($n=574$), and reported a mean score of 71.90 ($sd=13.58$), and coefficient alpha of 0.92.

In addition to subjects' satisfaction with specific features of the job, a measure of general job satisfaction was included in the questionnaire battery. It is conceivable that respondents may be highly dissatisfied with one aspect of their job, and yet this would

not show in their overall job satisfaction as measured by the faceted scale because the items are not weighted. For this reason an extra item was appended to the Warr et al. scale, namely "Looking at things overall, how satisfied are you with your job?", in order to gain a measure of respondents general job satisfaction.

Self-Efficacy

According to Bandura (1982), self-efficacy can predict performance in a variety of domains, as long as the measure is tailored to the specific tasks being assessed. This creates a potential problem for studies exploring the construct in that "*there are no measures which can be used routinely in research (since the concept is, by definition, situationally-specific)*" (Sadri & Robertson, 1993).

Bandura proposes that two types of expectancies influence behaviour: outcome expectancies, the belief that certain behaviours will lead to certain outcomes, and self-efficacy expectancy, the belief that one can successfully perform the behaviour in question. Both forms were measured in this research. Outcome expectancies were assessed with a single item pertaining to the subject's expectation of future success at work or in job-seeking, which was rated on a ten-point response scale. Specifically-tailored measures of self-efficacy expectancies were not easily found, especially for insurance selling. However, a scale to measure perceived self-efficacy in job-seeking, which has good psychometric properties, was used in the third experimental study. The Job-Seeking Self-Efficacy Scale, a six-item index developed by Caplan et al. (1989), asks subjects to rate how good they perceive they are at performing behaviours required for getting a job, such as writing job applications, preparing curricula vitae etc. The scale has an alpha coefficient of .87.

Although self-efficacy is primarily conceptualised as a situation-specific belief, some researchers have developed omnibus measures of generalised self-efficacy (e.g. Tipton & Worthington, 1984, Sherer et al., 1982), claiming that "*the experiences of personal mastery that contribute to efficacy expectancies generalise to actions other than the target behaviour*" (Sherer et al., 1982, p664). It is argued that past experiences with success and failure in a variety of situations result in a general set of mastery

expectations that the individual carries into new situations. This is an interesting notion for the present research. The General Self-efficacy Scale (Sherer et al., 1982) measures such generalised beliefs of mastery. It consists of 17 items, with a 5 point agree-disagree response format. Items in the scale include “when I decide to do something, I go right to work on it”, “I avoid facing difficulties”, “Failure just makes me try harder”. Sherer et al. report that the scale has good internal reliability (Cronbach alpha coefficient = .86), and that the items load on to a single factor. The scale was found to correlate with other similar personality measures, providing an indication of its construct validity. Because of its potential relevance to the present research, the General Self-efficacy Scale was used in the third experimental study in conjunction with the specific measure of job-seeking self-efficacy.

Attributional Style

Strategies used to measure causal attributions and attributional style can be classed into four general groups. The first consists of scales that require respondents to choose specific attributions such as ability, effort, luck and task difficulty, from which attributional indices are computed. The second strategy requires subjects to write, in free format, the cause of specific outcomes. These attributions are later rated by the researcher in terms of their underlying attributional dimensions (as perceived by the researcher). The third is a content analytic procedure for extracting causal attributions from pre-existing written material, such as diaries, newspaper articles and companies annual reports, which are then rated by judges according to their dimensional properties. A fourth method involves subjects being asked to rate their own or hypothetical attributions along relevant causal dimensions. This latter strategy is considered to be the most sound, as it does not suffer from the “fundamental attribution researcher error”, the researcher assuming that she/he can accurately interpret the meaning of the subject’s causal attributions (Russell, 1982).

The most widely accepted measure of attributional style is the Attributional Style Questionnaire, ASQ (Peterson et al., 1982). It conforms to the fourth measurement strategy outlined above. The ASQ consists of twelve hypothetical situations: six positive outcomes (e.g. you apply for a position that you want very badly and you get

it) and six negative outcomes (e.g., you go out on a date, and it goes badly). Half the events are achievement-related, the remainder have interpersonal/affiliative themes. Respondents are asked to imagine they are in the situations, to write a cause for each one, and then rate the cause along three attributional dimensions: locus, stability and globality. Scoring of the questionnaire yields an index for each of the 3 positive subscales and 3 negative sub-scales. In addition, a composite negative score (CoNeg) is computed by summing across negative the sub-scales and dividing by 6, a composite positive score (CoPos) is derived in the same way, and a total score (CPCN) is calculated by subtracting CoNeg from CoPos.

Psychometric analyses reported by Peterson et al. (1982) indicate that the subscales for good events and for bad events were substantially intercorrelated. The internal consistencies of the six subscales, as assessed by Cronbach's alpha, were modest, ranging from .44 to .58 for the good events, and from .46 to .69 for the six bad events. Test-retest correlations of the six sub-scales over five weeks ranged from 0.58 to 0.7, indicating some temporal consistency in the ASQ, although other researchers have shown that with depressed subjects, ASQ scores changed as subjects' depression lifted (e.g. Persons & Rao, 1985).

Because of its widespread use, the ASQ has attracted quite a deal of comment (and criticism). Some of the criticism has centred around its poor internal consistency. Peterson et al. (1982) suggests that this may be due to the small number of items (six in each scale) and intercorrelation of the subscales, they recommend that the composite scores for good and bad events be used instead ($\alpha = .75$ and $.72$ respectively). However, several researchers have criticised the use of composite scores (e.g. Carver, 1989, Cochran & Hammen, 1985). Peterson (1991) suggests, in response, that the various dimensions capture a higher order notion to do with the extent and nature of helplessness deficits, which justifies their combination. This is plausible. Furthermore, recent psychometric analyses (Corr & Gray, in press) have confirmed that all three attributional dimensions of CoPos (internality, stability and globality) load on to one factor, whilst for bad events (CoNeg), stability and globality are highly intercorrelated in one factor, with internality loading on to another. Thus, there is some psychometric

justification for using the composite scores. The CPCN composite is a different matter. I suggest that it lacks conceptual clarity, and have argued in Chapter 2 against its use.

There is now quite a large literature supporting the validity of the ASQ. It has been shown to predict naturally occurring causal explanations (e.g. Peterson & Seligman, 1984a, Henry & Campbell, 1995)⁵, and to correlate with measures of depression (Sweeney, Anderson & Bailey, 1986), self-esteem (Brewin & Furnham, 1986), anxiety (Johnson & Miller, 1990), hardiness (Hull et al., 1988), achievement (Seligman 1991), and with indices of success at work (Corr & Gray, 1995c). Despite its widespread use, however, questions have been raised about the suitability of the ASQ for occupational settings (Ilgen & Klein, 1989a, Kent & Martinko, 1995a). It was developed for administration to college students, some of the hypothetical events, therefore, are irrelevant for business applications. According to Peterson (1990), the solution is to develop alternative attributional style questionnaires, choosing events of clear concern to the population being studied. This was the purpose in the development of the Insurance Attributional Style Questionnaire.

4.5 INSURANCE ATTRIBUTIONAL STYLE QUESTIONNAIRE

1. Rationale

The diathesis-stress model of hopelessness depression formulated by Abramson et al. (1989) predicts that a depressogenic attributional style in a particular content domain provides specific vulnerability to the symptoms of hopelessness depression when an individual is confronted with negative life events *in that same content domain*. Transposing this model to the occupational sphere, one would expect vulnerability to workplace depressogenic equivalents (such as demotivation, reduction of persistence, low mood) when an individual is confronted with negative experiences and failure at work. In order to be able to predict future vulnerability to sub-clinical symptoms of depression in the occupational sphere, domain-specific measures of attributional style are necessary. Only one measure of work-related attributional style (Furnham et al.,

⁵ It must be noted, however, that Cutrona, Russell & Jones (1985) found little evidence that ASQ scores predict peoples' attributions of real negative events in their lives.

1992) was found in a review of the literature, although another (Kent & Martinko, 1995) has recently been developed. The former questionnaire is still being refined with regard to its length and dimensional structure, reliability and construct validity. For this reason, together with the relevance of the attributional style construct to the job of insurance selling (Seligman & Schulman, 1986, Corr & Gray, 1995c), and in preparation for two of the experimental studies in this research, the Insurance Attributional Style Questionnaire (IASQ) was developed as a domain-specific attributional questionnaire.

2. Development of the IASQ

A 16 item scale was developed to assess how individuals make causal attributions for occupational outcomes in the insurance industry. Similar to the Attributional Style Questionnaire, the respondent is asked to supply a cause for a number of hypothetical situations, and then rate each cause along particular attributional dimensions. Causal dimensions rather than causal explanations are measured, as there is general consensus in the literature that it is the dimensional structure of attributions, rather than the nature of the specific attributions themselves, that influences expectancy, affect and behaviour (Kent & Martinko, 1995a). The causal dimensions assessed in the scale were dictated by the context for which the scale was designed. Thus, the stability and globality dimensions were included to gain a measure of cross-temporal and cross-situational consistency of the occupational attributional style (for example, it is informative to know in work settings whether the construct refers just to a specific aspect, such as promotion, or is more global), and the internality dimension was included to capture the respondents' work-related self-esteem. Initially, consideration was given to adding a fourth dimension - controllability - however, pilot work indicated that it was not independent of the locus dimension. Russell et al (1987) reported similar results, finding a correlation between locus of causality and controllability of 0.93.

The ASQ response format was selected for use as it avoids the "fundamental attribution researcher error" (Russell, 1982). Furthermore, it does not constrain the causal explanations offered by the subject, but at the same time it allows objective quantification of responses by having the subject rate the internality, stability and

globality of the causes (Seligman & Schulman 1986) The use of hypothetical events rather than real-life events, was considered preferable because the former are ambiguous, and do not come equipped with clear consensus, consistency and distinctiveness information Therefore, respondents are required to make their own 'cognitive contribution' to the situation in order to make a causal attribution, which facilitates the operation and measurement of an attributional style (Alloy et al., 1988) Further, each respondent can be presented with the same set of events, thereby controlling situational information across individuals

The scale content of the 16 items was tailored to organisational issues The items pertain solely to the achievement domain (unlike the ASQ, which samples both the affiliation and achievement domains), and consist of hypothetical situations from the insurance industry, specifically the role of insurance selling

Table 4 1 The Hypothetical Events of the IASQ

ITEM	HYPOTHETICAL EVENT
Positive 1	You get an exceptionally large bonus at the end of the month
Positive 2	You have found a significant number of good prospective clients
Positive 3	You apply for a promotion and get it
Positive 4	You are top salesperson for the month
Positive 5	You carry out a highly successful sales promotion
Positive 6	You are asked to head an important project
Positive 7	You earn more than £2000 commission on one case
Positive 8	Your work is highly praised by a colleague
Negative 1	Your work is criticised in a team meeting
Negative 2	You fail your licensing exam
Negative 3	You were the only member of a team who did not qualify for a major company incentive
Negative 4	You haven't reached target for three months in a row
Negative 5	You recruit a team of consultants and they leave
Negative 6	Your manager gives you a poor quarterly report
Negative 7	You can't get all the work done that others expect of you
Negative 8	Your manager acts negatively towards you

A pool of items was initially developed with a colleague, Dr Philip Corr, and was given to a number of insurance sales people and sales managers for their assessment in terms of face validity, necessary ambiguity and discriminability. Sixteen items (eight positive and eight negative) were chosen as being most relevant to the role of insurance selling. The scale items are outlined in Table 4.1.

The instrument is scored by aggregating the three dimensional scores for the 8 positive items, and dividing by 8 (the number of items), to provide a composite positive score (CoPos), and doing the same for the 8 negative items to provide a composite negative score (CoNeg).

3. Psychometric Analysis

A study to assess the psychometric properties of the scale was conducted. One hundred and three newly appointed insurance representatives completed both the IASQ and the ASQ in the second week of their two-week induction course. The respondents were 88% male, with an age range of 20 to 45 years.

a) Internal Reliability

Table 4.2 presents the means, standard deviations and internal consistencies (Cronbach's coefficient alphas) for each of the dimensional sub-scales and the composites.

Table 4.2 Means, S.D.s and Alphas for the IASQ Sub-scales and Composites

	POSITIVE EVENTS			NEGATIVE EVENTS		
	\bar{x}	S.D.	Alpha	\bar{x}	S.D.	Alpha
Internality	6.01	.79	.77	5.03	1.12	.79
Stability	6.10	.73	.82	4.06	1.46	.87
Globality	5.48	.9	.68	3.47	1.46	.88
Composite	17.59	2.07	.81	12.6	3.18	.9

The results indicate good internal reliability for both composite scales (CoPos and CoNeg), and within the six individual dimensions as well. Apart from the globality

dimension for positive events, all coefficients were clearly above 0.7, as recommended by Nunnally (1978). Parenthetically, it is interesting to note that the internal consistency of the composites, as well as of the individual dimensions of this scale, was on a whole better than both the ASQ (Peterson et al., 1982) and the Occupational Attributional Style Questionnaire (Furnham et al., 1992).

b) Factor Analysis

A principal-components analysis with Kaiser's unity criterion for extraction and varimax-rotation was performed on the six dimensional sub-scales. Table 4.3 presents the results. Two factors, accounting for 66% of the variance, emerged. The first factor comprised the three positive sub-scales (internality, globality and stability), and the second factor reflected the three negative sub-scales. This result indicates that the three dimensions are clustering into a factor within each group of positive and negative items, and provides justification for using the composite positive and negative scores.

Table 4.3 Varimax-Rotated Principal Components Analysis of IASQ Scales

	FACTOR 1	FACTOR 2
CoPos Internality	86	19
CoPos Stability	81	-08
CoPos Globality	77	-04
CoNeg Internality	-02	90
CoNeg Stability	-17	88
CoNeg Globality	15	51
Eigenvalue	2.04	1.89
Percent Variance	34	31.5

A Pearson correlation of CoPos and CoNeg was also computed. Similar to the ASQ, a significant relationship was not found ($r = -0.03$, $p = .8$), thereby confirming the independence of the two scales.

c) Item Analysis

Each of the eight negative items was analysed in relationship with the overall CoNeg score for the scale. Correlations between each item and the sum of the remaining items

indicated coefficients ranging from 6 to 78. The eight positive items were also analysed individually in relationship to the whole positive scale. The correlation coefficients were not as strong, ranging from 35 to 7 (Table 4.4). The impact of each item on the reliability of the scale was also tested by calculating Cronbach's alpha when the item was removed from the scale. In none of the eight cases involving negative items did the alpha improve with the removal of the item, thus indicating that each of the items contributes to the overall reliability of the scale. The overall alpha for the positive scale did not improve with the elimination of any of the eight positive items, except Item 1. The improvement in this case, however, was only marginal ($\alpha = .003$).

Table 4.4 IASQ Item Total Statistics

	Corrected Item-Total Correlation	Alpha if Item Deleted
Positive 1	35	82
Positive 2	57	79
Positive 3	70	78
Positive 4	65	77
Positive 5	49	8
Positive 6	55	79
Positive 7	46	81
Positive 8	61	78
Overall Positive Alpha =	81	
Negative 1	69	89
Negative 2	69	89
Negative 3	75	88
Negative 4	73	88
Negative 5	63	89
Negative 6	78	88
Negative 7	64	89
Negative 8	60	89
Overall Negative Alpha =	9	

Each of the eight negative items was then correlated with the overall CoPos score to test the discriminability of the items. None of the correlation analyses yielded significant coefficients. The same result occurred when each of the eight positive items were correlated with the CoNeg scale score. No significant relationship was found between

CoNeg and any one of the positive items. In sum, item analyses indicate that each of the items in the IASQ scale is contributing to the overall scale.

d) Validity

Relationship of IASQ with ASQ

Pearson's Product Moment correlations were computed on the CoPos and CoNeg scales of the IASQ and ASQ, and correlations of $r = .61$ ($p < .001$) for CoPos, and $r = .63$ ($p < .001$) for CoNeg were found to exist. When corrected for attenuation, the correlations increased to $r = .75$ (CoPos) and $r = .78$ (CoNeg). Thus the IASQ possesses a more than adequate degree of convergent validity with the ASQ. When, however, the IASQ was correlated with the achievement items only of the ASQ, the correlation coefficients decreased to $r = .52$ (CoPos) and $r = .59$ (CoNeg). This is surprising. One explanation may be the low number of ASQ items in each of the positive achievement and negative achievement cells (only three items in each cell). In addition, psychometric analyses of the ASQ conducted with US samples found no evidence of the discriminability of the achievement items from the affiliative items (Peterson et al., 1982).

4. Discussion

Analysis of the psychometric properties of the 16 item domain-specific attributional style questionnaire has yielded encouraging results. However, further analysis is necessary. Specifically, the issue of validity needs to be addressed more fully. A study is needed to assess whether the scale correlates with other measures to which it should theoretically relate⁶. Given the hypothesis underlying the development of this attributional style measure - namely that attributional style is related to occupational success and satisfaction (and by default negatively related to turnover), it is predicted that the IASQ will correlate with measures of productivity in the insurance industry,

⁶ A study was commenced to assess the predictive validity of the IASQ in terms of sales representatives' productivity. However, the company withdrew their involvement after the initial round of questionnaires with the explanation that it was an unsuitable time to be asking sales representatives or managers to 'do extra work' (completing questionnaires or rating sales reps' performance) with sales targets having been increased by 25% and employee turnover increasing.

such as business sold, commission earned, as well as with job satisfaction, intrinsic motivation and employee turnover⁷

4.6 SUMMARY AND CONCLUSIONS

This chapter has focused on the design and method of the research project - the research paradigm, the attributional intervention model, the dependent variables, the research design and outcome measures have all been described. The aim is to set the stage for the three experimental studies described in the chapters to follow. The first study evaluated a seven-hour occupational attributional training programme developed by Seligman and his colleagues at the University of Pennsylvania. On the basis of the results of this study, a new attributional training programme was designed, it was evaluated in the second and third studies. Like the Seligman programme, it is based on cognitive therapy, but it is also lodged within a framework of organisational training and development. All three studies have as their foundation the research methodology developed in this chapter.

⁷ Subsequently, the IASQ was included in a predictive validity study of the ASQ conducted by a colleague involving 93 new insurance sales agents. The results indicated that the IASQ composite score for positive events predicted number of insurance sales made 12 months later, however the correlation was negative. This is counter-intuitive given the strong positive correlation between the IASQ and the ASQ, and the fact that the ASQ (CoPos) has been shown to predict insurance sales in the UK. Clearly, further work is needed to determine the validity of the IASQ.

‘OPTIMISM ABC’

AN ATTRIBUTIONAL CHANGE PROGRAMME FOR THE WORKPLACE

*“There is nothing either good or bad, but thinking makes it so”
(Hamlet, Act II, Scene 5)*

This chapter reports the first experimental evaluation of the occupational attributional intervention. The chapter opens with a description of the programme, ‘Optimism ABC’, and its development. Next, the relevance of the insurance context as a suitable location in which to evaluate the programme is explored. The research study is described - the model, aims, hypotheses, method, analyses and results - and conclusions are drawn about the efficacy of the programme. Lastly, the opportunity is taken to undertake further psychometric analysis of the Insurance Attributional Style Questionnaire.

5.1 THE ‘OPTIMISM ABC’ PROGRAMME: DEVELOPMENT AND DESCRIPTION

In 1990, the Seligman research team at Foresight Inc wrote ‘Optimism ABC’, an attributional re-training programme for insurance agents. The course was developed specifically for Metropolitan Life, a large insurance company in the United States. A one-day programme held as two consecutive half-day seminars, Optimism ABC was designed as a burn-out prevention programme for all sales agents, especially new agents. According to the programme notes, it aims

“to inoculate sales agents against the pitfalls of selling by assisting them to cope better with adversity and rejection, and thereby, to increase production and career longevity” (Foresight, 1990)

Based on cognitive-behavioural principles (Ellis, 1974, Beck et al., 1979), Optimism ABC is designed to

“teach sales agents how to identify their unproductive and inaccurate thoughts, and to develop a system of thinking and evaluating that leads to increased effectiveness and job satisfaction” (Foresight, 1990)

In particular, the programme focuses on the way individuals view their successes and failures, and the impact of these beliefs on future success. Table 5.1 outlines the course topics. They include behaviourist techniques such as graded task breakdown, distraction techniques and activity scheduling, as well as standard cognitive therapy components such as the ABC model, negative thought recording, disputation techniques such as looking for evidence and alternative explanations (named the ‘Pie Chart Technique’), and the downward arrow technique (‘Iceberg Technique’). A mid-course assignment, to be carried out during the evening between the two half-day seminars, required participants to record and dispute their negative thoughts whilst ‘cold-calling’ prospective clients.

Table 5.1 Optimism ABC Course Topics

OPTIMISM ABC	
SESSION 1	SESSION 2
Course Overview	Homework Review
ABC Model	Iceberg Technique
Types of Beliefs	Pie Chart Method
Wrong Explanations	Rapid Fire Disputing
Distraction Techniques	Task Management Technique
Disputation Techniques	Stress and Negative Thinking
Negative Thoughts Record	Problems at Home
Mid-Seminar Assignment	Programme Review

A slightly longer version of the programme had been trialled at Metropolitan Life in 1989 by Foresight Inc. A small group of sales representatives identified as having “pessimistic orientations” or as experiencing difficulties at work attended the course. An evaluation was carried out in-house by Metropolitan Life and informally by Foresight Inc. The Planning and Research Unit of Metropolitan Life surveyed all programme participants and their managers after the course, and compared the production figures of course participants with those randomly assigned to the non-participant control group. They reported that both participants and their managers perceived value in the programme, and that many felt that there had been improvement in the sales representatives’ job skills and attitudes. Analysis of the sales figures, however, showed that there had not been an

improvement in productivity, nor in retention, although “a considerable improvement” (though not statistically significant) was reported for sales representatives who were still with the company one year later (Metropolitan Life, 1989)¹ However, it must be noted that no data or results have been reported

Foresight Inc gathered anecdotal information about the programme's effectiveness through monthly follow-up phonecalls to each of the sales agents for twelve months. The agents reported that they were able to reinterpret rejections by their prospects, to analyse each situation separately and to generate a list of possible contributing factors. However, the techniques used most often were the behavioural ones: activity scheduling, graded task breakdown and distraction techniques. The agents did not spontaneously use the cognitive techniques for challenging their thoughts, nor the ‘downward arrow’ strategy to explore their own meaning systems.

On the basis of these results, Foresight Inc felt that a fuller assessment of the programme was warranted. The purpose of this study, therefore, was to empirically evaluate the Optimism ABC programme. But, first, a consideration of the context in which the study took place, insurance selling, is needed.

5.2 THE CONTEXT : INSURANCE SELLING

Insurance selling is a psychologically challenging occupation. On the one hand, there is considerable freedom in the way the job is carried out, and earnings can be very high, but, on the other, the financial products are complicated, the freedom can degenerate into loneliness and frustration if not managed properly, and the job is characterised by repeated failure, rejection and indifference from clients. In the U.K., nine out of ten approaches by sales agents to prospective clients fail, and only one in four sales presentations is successful (LIMRA, 1993), yet company-imposed weekly sales targets are, in the main, rigidly enforced. Further, there is a climate of intense regulation in the insurance industry (new legal requirements of commission-disclosure, training standards and other regulatory practices have come into force), and this, together with lower

¹ This is a questionable finding to report, as these sales agents were probably the better performers anyway.

investment returns and falling consumer confidence due to scandals such as the personal pensions mis-selling, have resulted in falling sales (Financial Times, April 19, 1995) The rejection-induced psychological stress and the financial strain of commission-based earning leads many sales representatives to resign This is not only distressing for the individuals concerned, but is costly for companies too Turnover of sales staff averages 42% p a in the U.K. (LIMRA, 1993) and the cost of replacing them, in terms of recruitment, training, business lost etc , approximates £25,000 per person

In spite of these high cost estimates (which, incidentally, are equivalent to those being experienced in the US), few organisations seem to have developed systematic procedures and policies for keeping salesforce turnover under control (Futrell & Parasuraman, 1984) Yet, interventions to improve sales performance are legion

“Improving salespeople’s performance has become quite an industry, providing a spectrum of goods and services, from recruitment and selection to training and motivation” (Casey, 1990, p54)

Many interventions unfortunately are quite ad hoc, accompanied by few attempts to investigate the organisational context in which the intervention is to be conducted, and with little theoretical or empirical basis to inform them. Nevertheless, simple psychological programmes based on applied behaviour analysis principles have been shown to be effective (Casey, 1990) They include incentive systems, behaviour modelling, shaping and reinforcement, self-monitoring, goal-setting and feedback (many of which, it should be noted, also form part of cognitive-behaviour therapy practice) In general, substantial performance improvements have occurred from such interventions, and on occasions incidental improvements in employee retention have been reported as well. This latter finding is not surprising given the fact that poor performers are more likely to leave, especially if their earnings are commission-based But such approaches to the issue of labour turnover are piecemeal systematic procedures for reducing turnover are rare in organisations The reason may lie in the lack of empirically-validated interventions

According to Seligman & Schulman (1986), selling insurance is a job particularly suited for the investigation of learned helplessness and attributional style The reformulated learned helplessness model (Abramson et al., 1978) predicts that pessimistic attributional style, coupled with rejections and failures, predisposes to lower response initiation and

giving up. In the job of selling, this translates into fewer sales attempts, poorer sales and quitting. Seligman & Schulman conducted two studies in the insurance industry to test this hypothesis, and found that high levels of negative attributional style (CoNeg) correlated with poor sales in the first two years of the job, and that the positive and negative attributional style composite (CPCN) predicted job retention and sales performance in the first year. Corr & Gray (1995a, 1995c) replicated these results in the U.K., although interestingly, they found positive attributional style (CoPos) to be more strongly predictive of sales effort and performance than CoNeg. They concluded that attributional style is a *“causal (trait) influence on sales success, rather than a (state) consequence of being successful at selling”* (Corr & Gray, 1995a, p248)

On these bases, the investigation of a programme to bring about attributional change is both theoretically and empirically relevant in the insurance context

5.3 EVALUATION OF THE ‘OPTIMISM ABC’ PROGRAMME

The Prudential, one of the large U.K. insurance companies, agreed to support the research study. The company recently had reorganised and upgraded their sales agent position. The new role was more pressured and less financially secure than the previous one, and involved cold canvassing and other activities hitherto unmet in the sales agents’ job. Many of the ‘Financial Consultants’ (as the upgraded role was called) were having difficulty adjusting to the new role requirements. The company felt that the Optimism ABC programme would be valuable for the Financial Consultants (FCs)

Pilot Study

As a first step, the Optimism ABC programme was customised to the British context. A number of revisions were made. It was then piloted at the Institute of Psychiatry, London, using students and researchers as volunteer participants. A psychologist colleague and I acted as co-trainers and evaluators of the programme.

At the conclusion of the pilot, feedback was sought from the course participants. Many concerns were expressed about the academic nature of the programme, and the heavy emphasis on didactic input. The feedback confirmed my opinion that adjustments were needed to the fabric of the programme, although it was essential, at the same time, to preserve its original core, so that an authentic evaluation could be undertaken.

Optimism ABC - Modifications

In its original format, the Optimism ABC course lacked the structure and key components of effective corporate training programmes. First, it ignored the organisational context in which the training was to take place. As Katz & Kahn (1978) warn, training programmes designed only to bring about individual changes, without giving cognisance to organisational factors which shape the attitudes and behaviour of employees, have a long and well-documented history of failure. Second, the Optimism ABC programme failed to incorporate accepted training methods. It was more didactic than participative. It did not take into account trainee characteristics, such as differences in aptitudes, attitudes, prior knowledge and learning styles, nor was it based on a framework of adult learning principles. Furthermore, it had no inbuilt feedback mechanisms. Thirdly, and most importantly, it did not programme for transfer of training or maintenance of course effect back at the workplace. Generally there was a lack of attention to learning and training theory in the original programme.

Accordingly, the Optimism ABC course was modified to conform more closely to learning and training principles, and to incorporate specific Prudential policies and practices.

1 Programme Orientation

The programme in its original form was heavily oriented to changing negative attributional style. In line with the stronger correlation in the UK of positive attributional style with sales effort and performance, as well as with the Prudential company culture, the conceptual basis of the course was adjusted to place slightly less emphasis on negative thoughts and their reduction, and more emphasis to the enhancement of positive/adaptive thinking.

2 Training Process

The lack of variety in the programme design was corrected, and the didactic emphasis was reduced. Several new activities were developed, and some of the many plenary discussions were transformed into other activities. In addition, the homework exercise was modified and made more relevant to the role of a Prudential Financial Consultant (A simplified handout was also devised for the assignment, as the other was too academic and poorly presented for this client group.)

3 Course Objectives

Course objectives were clarified and customised to the Prudential culture and strategic direction. As well, in line with good training practice, the course objectives were revisited at end of course to ascertain whether they had been achieved, and to indicate what follow-up was needed.

4 Sequencing

A number of changes to the sequencing of the course segments were made to assist the acquisition of skills by participants, and to aid the flow of the programme. In addition, breaks and 'information stocktakes' were incorporated throughout the course because the content was so new for many (particularly the ABC model), and threatening for some.

5 Content

Culturally inappropriate teaching aids were replaced with company-specific materials and examples, such as video clips and role play scenarios.

6 Terminology

A significant number of changes to the terminology in the programme were necessary. The company felt it was too academic, too clinical and too American, and they requested a stronger corporate emphasis (e.g. the title of the programme was changed to 'Prudential Optimism Sales Training').

7 Participants' Workbook

Proformas and worksheets were developed for all the newly designed activities, and were added to the workbook. Changes were made to some of the existing worksheets to make them more appropriate for a corporate context.

8 Maintenance Programme

A simple maintenance programme was written, to assist delegates to apply the Optimism ABC material to their work, and to facilitate maintenance of course effect. It was designed to fit unobtrusively within the schedule of the Prudential financial consultant, by acting as an extension of a company monitoring requirement that was undertaken weekly by the FCs. Thus, in addition to monitoring their sales activity, the FCs were asked to assess their beliefs and expectations about their work. As such, the Follow-up Programme required little additional effort by the FCs, but it acted to facilitate the use of course strategies on the job (see Appendix II). FCs were asked to undertake the maintenance programme for 6 weeks, returning their "Personal Variance Analysis" forms to me weekly.

Although little could be done to modify the training model on which the programme was based, wherever possible, a consideration of the organisational context was incorporated, for example managers were included in the training, and the maintenance programme was developed around existing company practices (as outlined above). A customised version of the Optimism ABC course was written for the managers of the participating Financial Consultants, to enable them to assist the FCs to use the strategies in their daily work. It included, in addition to the Optimism ABC course content (which was customised to the managers' role), training in coaching and counselling skills, and in strategies to encourage the FCs to use the Optimism ABC skills on the job.

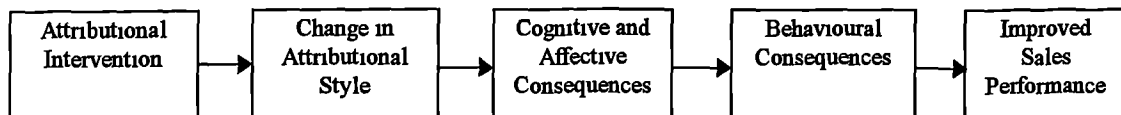
Thus, the Optimism ABC programme was adjusted in line with organisational training principles, as well as with Prudential policies and practices. Within the modifications, however, the essential features of the programme remained untouched.

5.4 THE RESEARCH MODEL

The research paradigm developed in Chapter 4 provided the framework for the evaluation study. Applied to the insurance context, it predicts that the attributional intervention will bring about changes in attributional style, which, in the presence of work stressors, will result in more external, specific and stable attributions for failures, and more internal, global and stable attributions for successes. These, in turn, will lead

to cognitive and affective outcomes such as enhanced self-esteem, motivation, self-efficacy, job satisfaction, success expectancies, reduced psychological distress and intention to quit, as well as to positive behavioural outcomes (greater work effort, fewer resignations), and improved sales performance

Figure 5 1 Attributional Intervention Model



Due to company factors and other constraints, the model was used in a slightly reduced form in this study. First, the subjects were not screened on the basis of their cognitive vulnerability (attributional style) or for the presence of adversity at work. As mentioned previously, Optimism ABC was proposed by its developers to be an inoculation programme for all insurance agents regardless of their current performance, and, accordingly, the Prudential required all their Financial Consultants to participate in the project (see below). Second, the behavioural consequences of the programme were limited to employee turnover (the company felt that the measurement of effort would not be feasible - it would necessitate daily monitoring by the FCs for a number of weeks prior to, during and after the attributional intervention, and the collection of these data posed problems). Third, 'self-efficacy' was omitted from the affective and cognitive consequences in the model due to the lack of an available insurance-specific measure of this variable (see Chapter 4), and also because of its similarity to 'learned resourcefulness', the predictor variable to be used in the study, see below. With hindsight, however, a measure of subjects' 'success expectancies' would have been possible (and useful).

The research model for the study therefore predicted that the Optimism ABC programme would bring about changes in the attributional style of Financial Consultants, which, regardless of the presence of work pressures, would result in more external, specific and stable attributions for failures, and more internal, global and stable attributions for successes. These, it was anticipated, would lead to enhanced self-esteem, motivation,

job satisfaction, reduced psychological distress and intention to quit, fewer resignations, and improved sales results

The company also requested that a profile be developed of the FCs for whom the intervention was maximally effective. To attempt this, I examined variables that have been shown to predict outcome in cognitive therapy. Sociodemographic characteristics have generally been found to be unrelated to cognitive therapy outcome (Whisman, 1993), but several studies have pointed to the predictive role played by 'learned resourcefulness'. Learned resourcefulness (Rosenbaum, 1983) refers to

"a constellation of skills that a person can use to monitor, control and change different unpleasant or dysfunctional internal events (e.g. pain, anxiety) in order to minimise the undesirable effects of these events on affect and behaviour" (Simons et al., 1985, p80)

It is also described as self-control. Simons et al. (1985) assessed a number of pre-treatment characteristics, including subjects' depression, hopelessness, automatic thoughts, education, and learned resourcefulness - only learned resourcefulness, as measured by the Self Control Scale (SCS, Rosenbaum, 1980) predicted response to cognitive therapy. In a related study, Rehm et al. (1987) found that unipolar depressed women with high SCS scores did better in self-control therapy (a cognitive-behavioural intervention). However, other studies have failed to replicate these findings, e.g. Jarrett et al. (1991b), although Burns et al. (1994), on the basis of their findings that learned resourcefulness predicted improvement among the more severely depressed patients, suggest that the inconsistencies may be due to variation in degree of severity of symptoms. In this study, it was predicted that learned resourcefulness would act as a prognostic indicator of the outcomes of the attributional change intervention, based, as it is, on cognitive therapy.

Research Aims

The aims of this study were to

- Evaluate the effectiveness of the Optimism ABC programme for insurance sales agents in terms of its psychological benefits, its behavioural and performance outcomes

- Contrast the attitudes, behaviour and work performance of insurance agents who participated in the programme with those of their non-participating colleagues
- Elicit the views of the course participants about the usefulness of the Optimism ABC course for their work
- Undertake further psychometric analysis of the Insurance Attributional Style Questionnaire

Hypotheses

1 In comparison with insurance agents who did not receive the Optimism ABC programme, it was hypothesised that agents who participated in the programme would exhibit improvements in attributional style, self-esteem, motivation, job satisfaction intention to quit and psychological health, that the improvements would persist longer, and would flow on to positively affect employee turnover and sales productivity

2 The outcomes of the Optimism ABC programme (in terms of change in attributional style, psychological strain and amount of commission earned) would be predicted by subjects' pre-intervention learned resourcefulness. Further, because self control or learned resourcefulness is learned (as its name implies), and there are similarities with self-efficacy², it was also hypothesised that, as a result of the attributional training, subjects in the experimental group will show improvements in learned resourcefulness relative to the control group³

3 Previously, the Insurance Attributional Style Questionnaire was shown have good internal reliability, a strong (and logical) factor structure, and good item discrimination. In terms of its validity, the two sub-scales, CoPos and CoNeg, were significantly correlated with the equivalent sub-scales in the Attributional Style Questionnaire, thereby offering preliminary evidence of the scale's construct validity. Now, further evidence of validity was required, particularly the correlation of the scale with other theoretically-related psychological variables and with sales performance. It was predicted that the

² A quarter of the items of the standard measure of learned resourcefulness, the Self Control Scale, measure generalised expectations of self-efficacy

³ It must be noted, however, that this latter hypothesis is purely exploratory - until now, learned resourcefulness has been used solely as an independent variable

IASQ would show a significant relationship to the cognitive and affective measures in the model, and, similar to the ASQ, would predict sales performance

5.5 METHOD

It needs to be said at the outset that there were problems with the design and implementation of this study. The usual standards of research rigour were attempted at all points, but a number of factors including organisational constraints, unforeseen circumstances, and my own inexperience in not anticipating and pre-empting some of the organisational problems⁴, reduced the rigour of the experimental design. For example, the selection criteria for the study were chosen by the Prudential: they decided that all sales agents in the new Financial Consultant position would participate, regardless of their attributional style or whether they were experiencing any work-related difficulties (as the diathesis-stress component of the RLH theory would prescribe). Further, although the company conceded to my request for a control group, they felt that a waiting-list control group design would not be feasible, and indicated that a non-participating control group should be used instead. This reduced the commitment to the study of the FCs allocated to the control group, which had a dire effect on the return rate of questionnaires (see below) and furthermore, introduced a potential threat to the internal validity of the study in terms of placebo effects. Most unfortunately, an industrial dispute occurred within the Prudential part-way through the project, which severely eroded the sample (FCs were advised by their union not to attend courses, nor to complete questionnaires). Despite these and other misfortunes, the study aimed to adhere to the conditions of a full experimental design.

Statistical Power

One hundred and ninety Financial Consultants from 28 company districts throughout Britain were requested by the company to take part in the study. A priori power calculations were performed to ascertain whether this sample size was sufficient for

⁴ This was my first PhD study; I learnt from it how to pre-empt some of the organisational constraints for subsequent studies

adequate statistical power in the study (Cohen, 1990) Statistical power, the probability that the null hypothesis will be rejected when it should be rejected, that is, when an actual effect exists (Cohen, 1977), is a function of three parameters the significance level employed, the reliability of the sample results, and the effect size The significance level in this study was set at .05, and the power at 80%, but it was not possible to ascertain the effect size, as comparable studies evaluating corporate attributional interventions had not been conducted Therefore, estimates had to be calculated from similar studies in the clinical domain

a) Seligman et al. (1988) examined the effect of cognitive therapy on the attributional style of 31 unipolar mildly depressed patients (average score on the Beck Depression Inventory [BDI] was 15.8) A significant improvement in negative attributional style occurred ($t[25]=3.1, p<.004$) after an average of 22.5 one-hour sessions over a six month period Mean reduction in negative attributional style (CoNeg) was 1.5, $S D = 2$, mean increase in positive attributional style (CoPos) was 1.4, $S D = 2$, mean change in composite attributional style, the difference between CoPos and CoNeg (CPCN) was 2.8, $S D = 3$

b) Firth-Cozens & Brewin (1988) compared attributional change of 40 depressed patients ($BDI = 19$) in two types of psychotherapy, interpersonal and cognitive-behavioural therapy After 8 weeks of cognitive therapy (one hour per week) the average CoNeg score decreased from 10.84 to 9.46 ($F = 4.06, df = 1,37, p<.05$)

In using these two studies to estimate optimum sample size for the current study, the differences between the format of the above studies and an evaluative study of the Optimism ABC programme needed to be considered Unlike the former, Optimism ABC is based on applied cognitive therapy principles, and is presented in a group training format It is generally conceded that individual therapy is more efficacious than group therapy (Lewinsohn & Clarke, 1984) Nevertheless, group treatments have several advantages over individual treatments they provide opportunities for participants to practice and role play new skills and they provide modelling of the application of skills to new situations Furthermore, the Optimism ABC programme is an 7.5 hour course conducted over two sessions, compared with an average of 22.5 one-hour sessions in the

Seligman et al (1988) cognitive therapy experiment, and eight one-hour sessions in the Firth-Cozens and Brewn (1988) trial. Homework between sessions is a critical component of cognitive-behavioural interventions. Thus, not only is the Optimism ABC intervention shorter than the other two interventions, but the opportunity for subjects to undertake homework tasks is restricted to one occasion.

Taking these differences into account, estimations of the sample size needed for sufficient statistical power to detect a significant effect if one existed were computed to be 31 subjects x 2 (to offset the fewer number of sessions, the limited opportunity for homework and the group format) = 62 subjects per group⁵. Thus, the 190 Financial Consultants that the Prudential put forward for the study comprised an adequate sample.

Research Design

A cluster randomised design was used. The 190 subjects (95% male, mean age 35 years, mean tenure 8 years, mean length of education 12 years) worked in 28 geographic districts of the company spread throughout the United Kingdom. Such geographic clustering of participants typically has caused problems with random allocation in organisational studies, for example, it is often simply not possible to introduce an intervention to some employees and not others in a work unit, and, furthermore, there is the risk of contamination through 'cross-talk' if individuals from the same cluster are allocated to different groups (Dunn, 1994). This has frequently resulted in the use of non-randomised quasi-experimental designs such as a non-equivalent control group design (see Chapter 3). However, in this study, the conditions of a full experimental design were preserved by randomly assigning the subjects, by district, as participants and non-participants in the training programme, that is, districts (rather than individuals) were randomly allocated to experimental or control conditions - a cluster randomised design. This design has strengths in that it reduces the confounding influence of background variables such as district characteristics, managerial style and geographic location. However, its possible pitfalls are also recognised: power may be reduced because subjects within clusters may exhibit within-group correlations (they share office

⁵ Post hoc calculations of the statistical power in the study (Cohen, 1977) confirmed the sample sizes estimated above.

facilities, they tend to have similar experiences, they may talk to each other and influence each others' views) and thus they may not provide statistically independent information (Dunn, 1994) To ascertain whether this sample suffered from such problems, intra-district correlations were computed in the analyses

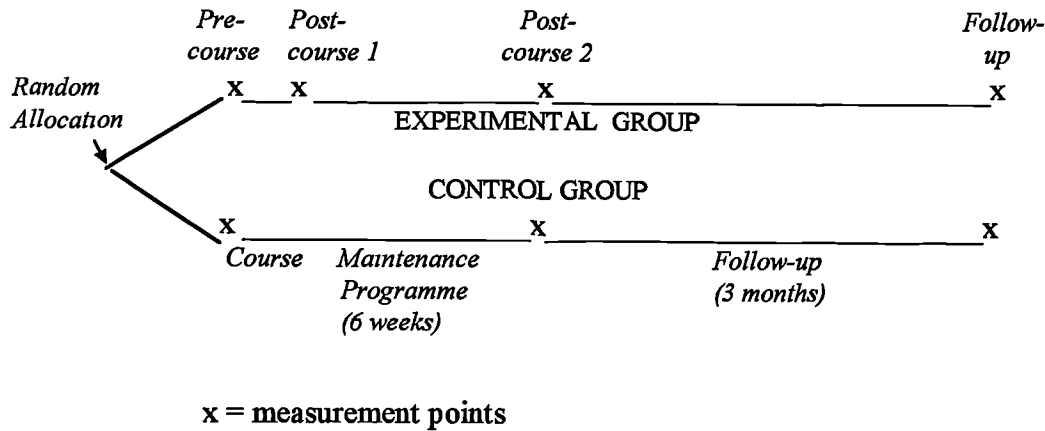
The random allocation resulted in approximately 95 sales representatives in each condition The subjects in the experimental group were given the 2 x half-day intervention, and for 6 weeks afterwards used the "Personal Variance Analysis" form as a simple maintenance activity Control subjects completed questionnaires at the same time as the experimental subjects, but did not receive any treatment or maintenance programme

Ninety-five financial consultants from the following 14 districts attended the 2 x half day programme Ayr, Glasgow North East, Newcastle West, Halifax, Burnley, Stockport, Chesterfield, Western Park, Halesowen, Carmarthen, Aylesbury, Kettering, Saffron Walden, Hastings Seven Optimism ABC courses were run consecutively over a month period (thereby reducing any bias caused by time), with an average of 14 participants per group Prior to the commencement of the workshops, the customised course for the 14 managers of the participating financial consultants was conducted All courses were conducted by the researcher and another psychologist from the Institute of Psychiatry⁶ The courses were standardised in terms of format, mode of delivery and time of delivery

Measurements were taken at three points in the study pre-course, at the completion of the 6-week maintenance programme, post-test 2, and at follow-up three months later, post-test 3 (Figure 5 2) The follow-up measurement point, 4 5 months after the courses were completed, was included to test for durability of course effect An additional measure of experimental subjects' attributional style was taken at the conclusion of Optimism ABC course, post-test 1 However, due to the corporate (c f laboratory) context of the study, it was not possible to get a measure from the control subjects at this point in the experiment, as it took place only one day after the pre-course measure, and such tight experimental conditions were not possible with subjects spread all over country

⁶ I am grateful to Chuly Lee for her help in delivering these courses

Figure 5 2 Research Design



Outcome Measures

"Social scientists have traditionally relied too heavily on self-report data as proxy variables to measure actual behaviour" (Blalock, 1989)

To minimise any potential biases associated with self-report data, behavioural measures and performance outcomes were used in combination with course reaction and attitudinal scales in the present study. The specific measures, which were described in Chapter 4 'Methodology', are listed below. Additional measures, necessitated by the particular features of this study, are described in detail.

Attitudinal Measures

- The **Attributional Style Questionnaire** (Peterson et al. 1982) was used to measure the principal outcome of the study. Because the research design required repeated measures of subjects' attributional style over a short space of time, (for example the pre-test measure and post-test 1 took place on consecutive days), parallel versions of the instrument were needed⁷. The Seligman research team were consulted. They informed me that, although a parallel version of the ASQ did not exist, they had developed a forced-choice ASQ, which they sent me. It was a 48-item ipsative scale,

⁷ Furthermore, after the pre-test questionnaire was sent out to subjects, it was discovered by the Prudential Training Department (who ran the study with me) that another section of the Prudential had recently administered the ASQ to all Financial Consultants. Multiple use of the instrument in this study on top of its previous use would have reduced the validity of the results.

comprising internality, globality and stability sub-scales for positive events and for negative events, yielding CoPos, CoNeg and CPCN scores similar to the ASQ. The instrument was still in its developmental stage and awaiting full psychometric analysis, nevertheless, the authors reported that a preliminary comparison with the ASQ had indicated a correlation of $r = .54$ ($n=81$).

I conducted a pilot study to compare the ASQ with its forced-choice counterpart, using a sample of 22 post-graduate students at the Institute of Psychiatry. The overall correlation between the two instruments was so poor ($r = .37$) that I decided not to use the forced-choice questionnaire in the research study, and instead to use the Insurance Attributional Style Questionnaire. The development of this instrument, together with its psychometric properties, were described in the previous chapter. In this study, the internal reliability of the scale (as measured by Cronbach's alpha) was 0.93.

- **Rosenberg Self Esteem Scale (Rosenberg, 1965)** The authors reported an internal reliability of .92 (Guttman reproducibility coefficient), in this study, the Cronbach alpha coefficient was 0.71.
- **The Overall Job Satisfaction Scale (Warr, Cook & Wall, 1979)** was employed, as well as the one-item measure of general job-satisfaction, as described in Chapter 4. The internal reliability of the scale in this study was 0.88.
- **Intrinsic Motivation Scale (Warr, Cook & Wall, 1979)** - The instrument had a Cronbach alpha of 0.76 in the present research.
- **Intention to Quit Scale (Guest et al, 1993)** In this study, the scale had good internal reliability ($\alpha = .72$), and the items clustered into one factor with an eigenvalue of 1.7.
- **General Health Questionnaire 30 (Goldberg, 1978)** Both the normal scoring and the scoring to measure chronic psychological strain were employed. Cronbach alpha was 0.94.

- **Self-Control Schedule (Rosenbaum, 1980)** was used to measure subjects' learned resourcefulness. This is a 36-item scale designed to assess (a) the use of cognitions and "self-statements" to control emotional and physiological responses such as anxiety, pain, anger, boredom, (b) the application of problem-solving procedures (e.g. planning, problem definition, evaluating alternatives, anticipation of consequences), (c) the delay of immediate gratification (e.g. exploring alternatives before making a decision), and (d) perceptions of self-efficacy. Psychometric analyses based on data from four samples of Israeli students, one sample of US students and one sample of Israeli men indicated alpha coefficients ranging from .78 to .84, with a mean of .81, and test-retest reliability over a period of four weeks of $r = .86$, $p < .01$, suggesting that the SCS scores are quite stable in the absence of any sort of intervention (Rosenbaum, 1980). With its emphasis on self-control behaviours, rather than attitudes, the scale is well-suited to act as both an independent variable and dependent variable in this research. The Cronbach alpha in this study was 0.86.

In addition to the above measures, and due to the nature of the particular profession being studied, a measure of social desirability responding was included in the questionnaire.

- **The Social Desirability Scale (Crowne & Marlowe, 1964)** was used to measure "*the extent to which individuals describe themselves in favourable terms in order to achieve the approval of others*" (Robinson & Shaver, 1973, p.727). This 33-item scale, with a true-false response format, contains two dimensions: claim good qualities (culturally acceptable but probably untrue), deny bad qualities (true but undesirable). One point is scored for each response in the socially desirable direction, providing a range from 0 (no social desirability) to 33 (highest social desirability). Norms for various samples are provided, including a sample of 285 applicants to an insurance company⁸. The scale is reported as having an internal consistency of $r = .88$ (Kuder-Richardson 20), and a test-retest correlation over one month of .88. In this study, the internal reliability (Cronbach alpha) was 0.82.

The individual scales were compiled to form a questionnaire of several parts. Considerations of ease of completion and 'user-friendliness' dictated some modifications.

⁸ The mean score of this sample was 24.6, the highest of the various samples reported.

instructions were simplified, response keys were streamlined, and the order of some of the items changed

Personalised feedback was offered to all subjects. In addition to the ethical considerations of providing feedback on psychological questionnaires, it was hoped that it would act as an incentive for the subjects to complete and return their questionnaires. This was particularly important for the control subjects, as the experimental subjects, having attended the course and met the psychologist trainers, no longer doubted the promises of confidentiality, and did not need as much incentive to complete and return the questionnaires. This was not the case for the control subjects. Individualised feedback reports were written and sent to each of the FCs after the completion of the study⁹

Several other steps were taken to prompt the financial consultants to return the questionnaires

- I wrote letters to all non-returners, asking them to complete and return the questionnaires
- the Prudential Training Department wrote to all managers apprising them of the importance of the project, and the need for data to be collected to evaluate the outcomes
- the line managers of all sales representatives involved in the programme (both experimental and control groups) specifically requested them to complete and return the questionnaires

Unfortunately, the return rate of questionnaires from the control subjects was low from the outset - only 38 of the 95 subjects (40%) returned their pre-test questionnaires. Furthermore, an industrial dispute took place within the company during the follow-up phase, which drastically affected the return rate of the post-test 3 questionnaires from subjects in both groups, but more so from the control group (the return rates dropped to 36% for the experimental group, and 16% for the control group). This experience brought home very clearly to me the hazards of organisational research! However, it

⁹ Subjects whose scores on the questionnaires indicated that they were experiencing high levels of psychological strain were contacted sooner

should be noted that the return rates, although low, were higher than the rate of questionnaire return in the seminal study of attributional style in the insurance domain, Seligman and Schulman (1986). Such a substantial sample attrition in this study, nevertheless, rendered this sample size grossly insufficient for adequate statistical power to detect a group difference if one existed.

Behavioural Measures

- **Employee Turnover**

Data concerning resignations for the four months before and after the programme took place were gained from the company. Although turnover data are typically sensitive to geographic location, this did not pose a problem in the present study, as the districts had been randomly allocated to experimental and control conditions.

Performance Measures

- **Productivity**

Sales performance was measured by the monthly commission earned by FCs. This measure was the same as that employed by Seligman & Schulman (1986) in their insurance study. In the Prudential, commission is calculated as a fixed percentage of the premium value of the policy sold, and is paid to the FC in the month after the sale is made. Thus, the amount of commission paid to an FC in July, for example, is a reflection of the sales made in June. It was agreed that nine months of commission data would be made available to me - figures for the four months prior to the Optimism ABC programme (baseline), and for five months afterwards (during the maintenance and follow-up periods).

However, when the time came for the company to provide the data, a problem arose. I was informed that it was no longer possible to furnish "commission earned" per month as originally promised, but only "commission received". The actual amount of commission received per month by FCs in the Prudential can be reduced by "clawbacks" from previous months (repayment of commission for lapsed policies etc.), and these data were

all the company were now prepared to make available¹⁰ This obviously reduced the precision of the measure as a reflection of sales made per month Nevertheless, on the positive side, the productivity and turnover data for all the subjects were stored centrally in the Prudential, and could be accessed in their complete form. These data, therefore, did not suffer the same attrition as the attitudinal data

Participant Reaction

The Prudential requested that their standard training evaluation proforma be used to elicit subjects' feedback about the Optimism ABC course This form, which is completed anonymously, consists of the following seven questions

PRUDENTIAL ASSURANCE COMPANY
End of Course Questionnaire

- 1 Which aspects of the course did you like most and why?
 - 2 Which aspects of the course did you like least and why?
 - 3 Which sessions did you find most useful and why?
 - 4 Which sessions did you find least useful and why?
 - 5 Overall, what do you think were the three most important things you learnt from the course?
 - 6 Do you think you will be able to put any of these into practice when you get back to work?
If yes, what?
If no, why not?
 - 7 In your opinion, can the course be improved?
If yes, how?
-

Subjects were asked to complete the forms at the end of each course In addition, verbal comments by participants to the course trainers were collected as qualitative data

5.6 RESULTS

Data examination and analysis were performed using SPSS Version 4 (Norusis, 1990) The results are reported below in five sections (as per the research aims and hypotheses)

- participant reaction

¹⁰ This was due, in part, to a change in personnel within the company - one of the many frustrations I encountered in this research study Furthermore, I now had to pay another section of the company to extract the data for me

- group differences in psychological variables, behavioural outcomes and performance
- social desirability effects
- predictors of outcome
- psychometric analyses of Insurance Attributional Style Questionnaire

1) Participant Reaction

Participant feedback, both formal and informal, solicited and unsolicited, was mixed. Scepticism, suspicion and hostility was expressed by many of the FCs. It was directed at two sources: the company and the course. In each of the seven courses, anger was expressed about the Prudential, the new FC role and their non-voluntary attendance at the course. Many were suspicious about the company's reasons for requiring all FCs to attend the programme; some suggested very strongly that it was a surreptitious attempt to force the FCs to cold canvass. Others came with the expectation that the course would provide them with their appointments for the week, and were unimpressed to learn that this was not the case. The issue of confidentiality was also of major significance. Many FCs were concerned that personal information would be fed back to the company, and subsequently used to their detriment. These issues, I would suggest, were the result of poor communication within the Prudential prior to the commencement of the courses, concerning the nature and purpose of the Optimism ABC programme. (A post hoc investigation into what happened to the information sent to all branches, indicated that, in many cases, it didn't get any further than the managers.) At the beginning of each course, time had to be spent dealing with the above "company" issues, and defusing the negative feelings they had engendered.

Cynicism and hostility were also expressed about the course itself. Many FCs were openly sceptical about the course content, and its relevance for their work. To be analysing one's thoughts and feelings was a foreign experience for some of the participants, understandably, it was threatening for a few, who responded quite negatively (and vociferously) to the programme.

Written feedback from participants was a little more favourable. The course reaction forms were completed at the end of the course, by which time the suspicion and anger

about the company's purpose in sending them to the course had dissipated, and participants were able to reflect and comment upon the course itself. The recently-appointed FCs reacted more positively to the course content than their more experienced colleagues, some of whom stated that the course was a waste of time and had little to teach them. Similarly, FCs who were able to identify with the stress of the job, and its effects, indicated that they had found the course beneficial. (This suggests that the course may be more appropriate for new agents, or those experiencing work-related stress, as the RLH theory would imply)

In terms of the course components, a large proportion of the participants (90%) indicated that the ABC model and thought recording techniques were the most useful aspects of the course. This is heartening considering they are the essential components of the programme. Interestingly, the mid-course assignment (thought-recording whilst cold canvassing) was rated as either most useful or least useful by an equal proportion (25%) of the 95 participants. Some of the FCs felt that the course material was too simplistic, while others said that it was too didactic and academic. Twenty-five percent of subjects indicated that nothing in the course was "least liked" or "least useful", but only eight percent rated the whole course as useful. Many FCs were still unreceptive to the programme by its conclusion, and consistently in each of the courses the value of programme was questioned.

2) Analysis of Group Differences

Psychological Variables

To ascertain whether the cluster randomised design produced problems of 'pseudo-replication', intra-cluster correlations were computed for each of the pre-course variables. The results (correlations ranging from .004 to .11) indicated that the subjects within each cluster were acting as independent sources of information, which meant that data analysis, using the individual as the unit of analysis, could proceed.

Analysis of covariance was used to test for differences between the experimental and control groups in the psychological variables. Similar to analysis of variance, ANCOVA is often used to test the null hypothesis that two or more sample means are obtained from

populations with the same mean. The advantages of ANCOVA over ANOVA, however, are 1) greater power, and 2) reduction in bias caused by differences between groups that exist before experimental treatments are administered (Hutema, 1980). Specifically, pre-test differences between groups that may have arisen by chance in the randomisation, or by non-random refusal to participate and produce follow-up data, are adjusted for, thereby reducing the within-group variance (and thus increasing the power of the experiment). In the present study, the pre-test scores were used as the covariates, with the 6 week (post-test 2) and 3 month follow-up scores (post-test 3) as the dependent variables.

In addition to assumptions of normality and homogeneity of variance, two main assumptions underlie ANCOVA: firstly that there must be a linear relationship between the dependent variable and the covariate, and secondly the slope of the regression lines between the dependent variable and covariates must be the same in each group. The latter implies that there is no interaction between the independent variable and the covariate (Bryman & Cramer, 1990).

These assumptions were checked in each analysis. In all except two analyses (CoPos pre-test/post-test3 and Self-Esteem pre-test/post-test3), the interaction between group and covariate was not significant, and the relationship between the covariate and the dependent variable was significant. The assumptions having been met in these cases, it was appropriate to proceed to test for group differences using ANCOVA. In the two instances where the assumptions were not met, (the regression slopes were found to be unequal), the data were plotted to determine the exact nature of the slopes. They were then converted to change scores by subtracting the pre-test score from the post-test score and an analysis of the change scores was undertaken using t-tests¹¹.

It should be noted that the very poor initial response rate by control group subjects (38 out of a possible 95 returned the pre-course questionnaire), coupled with a significant attrition in both samples due to the industrial dispute, resulted in very small data sets. Given that the power calculations indicated the need for 62 subjects in each group, there

¹¹ It is acknowledged that, as a method for testing group differences, this is less satisfactory than analysis of covariance, but it does provide a way of taking into account the effect of pre-test scores on outcomes.

was unlikely to be sufficient power to pick up any differences that may have existed between the groups

Table 5.2 presents the means and standard deviations for each of the psychological variables at pre-test, post-test 2 (after the 6-week maintenance phase) and post-test 3 (three months later and 4.5 months after course completion)¹², as well as the ANCOVA F values for the differences between experimental and control groups. Where the assumptions of ANCOVA were not met and the change scores were analysed by t-tests, the results are reported as t values.

Attributional Style

Because of the need to use two versions of the ASQ, statistical adjustments were made to the IASQ to make it comparable with the ASQ, so that the two scales could be used interchangeably (The adjustments were based on the outcomes of the validity study of the IASQ described in Chapter 4). In this study, the ASQ was used in the pre-test questionnaire, and because of the temporal proximity of post-test 1 (which prevented the use of the ASQ), the IASQ was used at this, and also at subsequent measurement points. With hindsight, the measurement of attributional style differences would have been more precise if the ASQ had been used at post-test 2 and post-test 3.

Notwithstanding these weaknesses, some interesting results were found. The Optimism ABC course participants showed a decrease in positive attributional style at the completion of the course (post-test 1, $\bar{x} = 15.98$, $s.d. = 1.99$), in comparison with their pre-test scores ($\bar{x} = 16.47$, $s.d. = 2.17$). This effect was the reverse of that predicted, and the difference was statistically significant ($t_{(91)} = 2.37$, $p = .02$). By the second post-test, 6 weeks after the completion of the programme, the scores of the experimental group had changed little, and the results of ANCOVA indicated that the difference between experimental and control groups was not significant. At the third post-test, three months later, a significant interaction existed between group and covariate which prevented the use of ANCOVA.

¹² Only the attributional style of experimental subjects was measured at post-test 1.

Table 5 2 Psychological Outcomes Study 1

	OPTIMISM ABC GROUP mean (s.d.)			CONTROL GROUP mean (s.d.)			GROUP DIFFERENCES F (df1, df2)		
	Pre-course	Post-course 2	Post-course 3	Pre-course	Post-course 2	Post-course 3	Pre-course c.f. Post-course 2	Pre-course c.f. Post-course 3	
Attributional Style - Positive [#]	16 47 (2 17)	15 94 (2 41)	15 38 (2 35)	16 05 (2 19)	16 32 (1 7)	16 25 (2 37)	0 43 (1,68)		t(42) = -1 06
Attributional Style - Negative [#]	12 65 (2 66)	11 35 (2 64)	11 31 (2 38)	12 46 (2 71)	12 00 (3 34)	12 69 (3 13)	0 86 (1,68)		3 79 (1,45)
Job Satisfaction - Faceted	72 00 (14 17)	71 58 (14 84)	67 79 (13 11)	74 17 (9 54)	67 95 (15 65)	66 06 (15 19)	1 38 (1,69)		0 24 (1,46)
- General	5 12 (1 27)	5 12 (1 26)	4 56 (1 48)	5 18 (1 04)	4 75 (1 65)	4 93 (1 28)	1 43 (1,69)		0 84 (1,46)
Intrinsic Motivation	36 14 (3 71)	33 98 (5 59)	35 03 (3 38)	36 00 (2 74)	36 05 (3 03)	34 93 (2 79)	2 9 (1,68)		0 06 (1,44)
Intention to Quit	5 12 (1 27)	5 12 (1 26)	4 56 (1 48)	5 18 (1 04)	4 75 (1 65)	4 93 (1 28)	0 37 (1,68)		0 65 (1,44)
Self-Esteem	9 16 (1 19)	9 12 (1 38)	9 12 (1 12)	9 1 (1 52)	9 4 (1 1)	9 65 (0 64)	0 67 (1,69)		t(46) = 0 41
Psychological Strain	4 41 (6 12)	1 97 (3 59)	3 53 (6 08)	4 12 (6 47)	2 2 (3 33)	4 87 (7 62)	0 7 (1,68)		0 63 (1,46)
Psychological Strain - Chronic	8 76 (6 34)	7 24 (5 19)	8 97 (7 27)	7 79 (1 02)	7 21 (4 95)	8 53 (8 31)	0 001 (1,68)		0 08 (1,46)
Learned Resourcefulness	34 85 (26 23)	43 19 (24 82)	44 00 (29 66)	33 54 (20 61)	43 21 (24 29)	44 58 (19 67)	0 04 (1,64)		0 01 (1,45)

[#] Attributional Style (Positive and Negative) Scores are adjusted to ASQ

* p< 05, ** p< 01, *** p< 001

However, when the data were plotted, some interesting results emerged. The lower scorers in positive attributional style pre-intervention (below 15) demonstrated a clear benefit from the programme compared with their control group counterparts. For the remainder of the group, the benefits were negligible or even reversed (i.e., the higher pre-intervention scorers had experienced a decrease in their positive attributional style by long-term follow-up, 4.5 months after the training). Overall, there was not a significant difference between the two groups.

As far as negative attributional style was concerned, again the experimental group showed a reduction from pre-test ($\bar{x} = 12.65$, $s.d. = 2.66$) to post-test 1 ($\bar{x} = 11.61$, $s.d. = 2.72$), which was statistically significant ($t_{(91)} = 3.54$, $p = .001$), although unlike positive attributional style, this change was in the predicted direction. The difference between experimental and control groups was not significant at post-test 2, but it approached significance at post-test 3 ($F = 3.79$, $p = .058$). Had the sample size been larger, it probably would have reached statistical significance.

The results of the main outcome variable, attributional style, therefore are mixed. As the course developers intended, there was a reduction in negative attributional style after the programme, but paradoxically, a reduction also took place in positive attributional style. Yet, by long-term follow-up, the lower scorers pre-intervention were demonstrating an improvement in positive attributional style. Conceivably, the pre-test/post-test difference in scores could have been due to the use of two scales, but it is unlikely that the group outcomes would have been affected, particularly as analysis of covariance was used to test for group differences at post-test 1 and 2. Given the relationship found in the UK between CoPos and insurance sales, rather than CoNeg, (Corr & Gray, 1995a), the impact of these outcomes is interesting to consider. It is to these effects that we turn next.

Cognitive and Affective Outcomes

The results of analysis of covariance indicated that there were no significant differences between experimental and control groups at either post-test 2 or post-test 3 in any of the variables - job satisfaction (both faceted and general), intrinsic motivation, intention to quit, self-esteem, psychological strain, chronic psychological strain and learned

resourcefulness (Table 5 2)¹³ On this occasion, examination of the plotted data for self-esteem at post-test 3 (where the assumptions of ANCOVA were not met) did not reveal any further information - the intersection point was outside the range of scores Of course, with adequate sample sizes, these results may have been different, although intrinsic motivation at post-test 3 was the only variable that even remotely approached statistical significance ($F = 2.9$, $df = 1,68$, $p = .09$) It can be tentatively concluded, therefore, that the post-course changes in attributional style did not make a substantial impact on any of the cognitive or affective variables

Behavioural Outcomes

Employee Turnover

Entry, and where appropriate, exit dates for each of the FCs in the study were analysed Eight experimental subjects (9%) and nine control subjects (11%) left the company in the five months after the courses were conducted (equivalent to the maintenance plus follow-up phases of the study) This difference between the groups was not significant ($\chi^2 = 0.17$, $df = 1$, $p > .1$)

Performance Outcomes

Sales Productivity

The monthly commission data supplied by the Prudential were in a dreadful state Not only were the actual figures mutually spurious (large proportions of commission were omitted), whole districts of FCs were missing, and the data set included employees who had not even been in the trial (some had left the company months beforehand, others hadn't even been appointed to the company when the study took place) The data for each of the nine months had to be individually checked against each FC's entry and exit dates Five different versions of the data were sent to me by the Prudential, it took them nine months to get it right Even then, I still had to track each of the 190 subjects

¹³ There was, however, a restricted range of scores in both the self-esteem scale and the GHQ - subjects tended to respond at ceiling and floor respectively

through the nine data files, as some FCs had left the company during the study, and were not differentiated from non-leavers who had not earned any commission that month. Fifty-three corrections were still required!

Eventually, the data were in a state ready for analysis. They were analysed by analysis of covariance, the assumptions for which were all checked and met. The dependent variables were (1) average commission received in the two months after the courses (equivalent to the maintenance period), and (2) average commission of the following three months (the follow-up period), with average commission received in the four months before the courses acting as the covariate. The results indicated that there was no significant difference between the experimental and control groups in commission received during the maintenance phase ($F = 0.67$, $df = 1,157$, $p = .41$), but that a significant difference between groups did occur in the follow-up phase ($F = 4.29$, $df = 1,147$, $p = .04$). Interestingly, the difference was in the reverse direction - the control group earned more commission than the experimental group during these three months (Table 5.3).

Table 5.3 Monthly Sales Commission

	OPTIMISM ABC GROUP			CONTROL GROUP		
	mean (sd)			mean (s.d.)		
	Pre-course	Post-course	Follow-up	Pre-course	Post-course	Follow-up
Commission earned (£)	1061 (451)	967 (491)	1143 (464)	1030 (586)	910 (446)	1279 (527)

A month by month analysis of the commission data indicated that the average commission earned by all subjects (experimental and control) dropped in the two months after the course, but recovered in the third month post-course (in fact, earnings were much higher in this month for both groups [£1417 experimental c.f. £1384 control] than in the pre-course months [£1061 c.f. £1029] - there may have been a special company promotion that week). However, commission earned by the experimental group decreased quite markedly in the final two months of the study (£999), relative to the control group (£1201). Reasons for this were explored with the company, but none could be found.

Omitting these two months for the moment, and looking just at the first three months after the courses, the average earnings of the experimental group were on a par with the control group (£1125 c f. £1072 per month). However, for the subjects who were the lower earners pre-course (those who earned less than the mean), the experimental group earned a higher average commission per month than the control group during these months (£972 c f. £800), although the difference, as analysed by analysis of covariance, was not statistically significant ($F = 3.51$, $df = 1,80$, $p < .07$)

In summary, the results indicate that the Optimism ABC course did not have a positive impact on the amount of commission earned by the experimental group (in fact, it could be argued that it had a detrimental effect). Nevertheless, there is a possibility that the programme may have been beneficial for the lower commission earners.

3) Social Desirability Effects

Subjects' scores on the Social Desirability Scale (Crowne & Marlowe, 1964) indicated that the responding in both groups was affected by social desirability concerns (Experimental group $\bar{x} = 19.08$, $s.d. = 5.73$, Control group $\bar{x} = 19.22$, $s.d. = 5.47$). It is conceivable, therefore, that such concerns may have affected the way in which the other scales were completed. For example, it has been suggested that, if subjects are deniers according to the Social Desirability Scale, they may fabricate their responses on the General Health Questionnaire¹⁴. To ascertain whether subjects' social desirability concerns had any differential impact on group outcomes, the analyses of covariance were re-calculated with subjects' pre-test scores on the Social Desirability Scale as covariate (together with pre-test scores of each psychological variable), with the post-test scores as dependent variables. The ANCOVA F values were identical to those calculated with just the pre-test scores as covariates (see Table 5.2), indicating that the social desirability effects were evenly spread across the two groups and did not have an impact on the group outcomes.

¹⁴ However, the chronicity scoring of the GHQ, which was used in this research, renders the instrument less easy to fake.

4) Predictors of Outcome

To evaluate the role of learned resourcefulness (as measured by the Self Control Schedule) as a prognostic indicator of response to the CBT-based attributional training, separate regression analyses were conducted using pre-intervention SCS scores to predict post-test attributional style (positive and negative), psychological strain, and commission earned (These four outcome variables were chosen as being representative of each stage of the intervention model, see Figure 5.1) Four equations were built using data from the treatment group only, in each equation the pre-test scores of the outcome variable were forced into the equation first, to remove the effect on outcomes of pre-intervention levels of the variable. The results indicated that learned resourcefulness failed to predict outcome to CBT-based attributional training in terms of negative attributional style ($B = 0.02$, $se(B) = 0.1$, $p = .88$), or commission earned ($B = -1.21$, $se(B) = 1.53$, $p = .42$), but it did predict outcome in terms of positive attributional style ($B = 0.4$, $se(B) = 0.1$, $p = .002$) and psychological strain ($B = -0.4$, $se(B) = 0.2$, $p = .06$). Specifically, pre-test learned resourcefulness was found to predict 17% of the variance in post-intervention positive attributional style, and 6% of the variance in psychological strain (higher learned resourcefulness pre-test was associated with higher attributional style and lower psychological strain post-test).

Additional regression analyses (with maximum R^2 improvement selection technique) were conducted using the experimental group data to establish whether any of the other pre-intervention measures might help to predict response to the programme. The predictor variables included attributional style, intrinsic motivation, job satisfaction, intention to quit, self-esteem and psychological strain. Again, response to the programme was measured by post-test attributional style, psychological strain, and commission earned. To remove the pre-intervention effects of each variable, the pre-test score of the variable was forced into the equation before the maximum R^2 selection procedures began. The results indicated that the only significant prognostic indicator was self-esteem. It predicted post-test negative attributional style ($B = -0.70$, $se(B) = 0.29$, $p = .02$) and commission earned ($B = -65.1$, $se(B) = 30.03$, $p = .03$), explaining 9% and 5% of their variances respectively. Interestingly, in both cases, the regression coefficient was negative, indicating that lower self-esteem before the course was associated with higher CoNeg and commission earned after the course. The negative relationship with

CoNeg is logical, with commission earned, however, it appears counter-intuitive. However, there is a possible explanation. Earlier it was suggested that the attributional intervention may have been more beneficial in terms of commission earned for subjects who were lower earners pre-intervention. As esteem and status are very much tied to sales in the insurance industry, it could be expected that this group would have had a lower self-esteem pre-intervention. Thus, it is conceivable that lower self-esteem pre-intervention may have predicted higher sales post-intervention in this way. (Only 5% of the variance in post-test commission was explained by pre-test self-esteem, which indicates that the relationship was not a strong one.)

Lastly, the effect of demographic variables (age, sex, education, tenure) were assessed. Consistent with Whisman (1993), none of the demographic variables were found to predict the outcomes of the CBT attributional training programme.

Thus, in summary, both learned resourcefulness and self-esteem were found to act as prognostic indicators of the response to the Optimism ABC programme, as measured by changes in subjects' attributional style, psychological strain and commission earned. We turn now to the analysis of the IASQ.

5) Psychometric Analyses of Insurance Attributional Style Questionnaire

As a first step, the relationship between the IASQ and a number of psychological and performance variables was explored. Data from the post-test phase of the study (experimental group only, $n = 52$) were used. Job satisfaction, motivation, intention to quit, self-esteem, psychological strain and sales performance (as measured by commission received) were analysed in conjunction with the CoPos and CoNeg sub-scales of the IASQ. The Pearson product moment correlation coefficients (two-tailed) are shown in Table 5.4.

It is notable that, contrary to the predictions of the RLH theory, but consistent with UK studies of attributional style (Furnham et al, 1992, Corr & Gray, 1995c), attributions for positive events were more strongly related to the job-associated psychological variables, than were the attributions for negative events. Furthermore, the correlation coefficients

were approximately the same size as those found in the above studies. The only statistically significant relationship in this data was between CoPos and learned resourcefulness, although other correlations with CoPos approached significance (and probably would have reached significance had the sample size been larger). Interestingly, neither CoPos nor CoNeg showed any relationship at all with sales performance (commission received). This is in direct contrast to studies exploring the properties of the ASQ in the insurance sector (e.g. Seligman & Schulman, 1986, Corr & Gray, 1995c), and is puzzling given the strong relationship between the ASQ and the IASQ. Of course, it may be due to the measure of sales performance used in this study.

Table 5.4 Pearson Product Moment Correlations Between IASQ and Other Variables

	CoPos	CoNeg
Job Satisfaction	15	01
Intrinsic Motivation	23	12
Intention to Quit	- 24	04
Self-Esteem	21	- 14
Learned Resourcefulness	50***	- 07
Psychological Strain	- 27	- 13
Sales (Commission)	00	- 08

* p < .05, ** p < .01, *** p < .001, two-tailed, n = 52

Corr & Gray (1995a) offer another possible explanation. In assessing the validity of the ASQ in predicting the performance of insurance sales agents, these authors remind us

“Testing for main effects of personality/cognition on job-specific performance may fail to uncover the complex interaction of psychological variables in influencing performance” (Corr & Gray, 1995a, p244)

To ascertain whether the IASQ in combination with any of the psychological variables predicted sales performance, interactive multiple regression models were computed. First, a multiple regression analysis of the main effects of the psychological variables and IASQ on sales performance was computed. None of the variables emerged as significant predictors. Two-way interaction variables were then formed by multiplying CoPos with job satisfaction, motivation and intention to quit (there was insufficient range in the self-esteem and psychological strain data to include them in the analyses, and the significant correlation between CoPos and learned resourcefulness excluded the latter variable). Interaction variables involving CoNeg and each of the psychological variables (including learned resourcefulness) were calculated in the same way. Following the procedure adopted by Corr & Gray (1995a), moderated regression analyses were then computed.

The main predictor variables were entered into the equations first, followed by the two-way interactions. The dependent variable was average commission received per month. The results indicated that none of the interactions formed with CoPos were significant, but that the interaction of intrinsic motivation with CoNeg was marginally significant in predicting average commission received per month ($B = - .41$, $se(B) = .29$, $p = .058$). Furthermore, the standardised regression coefficient was negative, indicating that low scores on one of the variables were associated with high scores on the other in predicting the outcome. Thus, although each of the variables alone failed to exhibit a significant relationship with performance, low CoNeg in combination with high intrinsic motivation predicted sales performance. The nature and direction of the effect makes sense. Of course, one needs to be cautious in interpreting these results. The beta coefficient was only marginally significant, and a number of regression analyses had been performed. Replication is required before it can be claimed that these results provide further evidence of the validity of the Insurance Attributional Style Questionnaire.

5.7 DISCUSSION

This study aimed to provide an empirical evaluation of Optimism ABC, an attributional training programme for the workplace. Unfortunately, the low return rate of questionnaires, particularly in the control group, led to the experiment having insufficient power to demonstrate a result in any of the attitudinal domains (power calculations indicated the need for 68 subjects in each group for 80% power). Nevertheless, the resignation and performance data, which were complete for all subjects and had adequate statistical power to detect a group difference if one existed, failed to demonstrate a significant group difference. These results indicate that the Optimism ABC course did not have a positive impact on the amount of commission received (in fact, it could be argued that it had a detrimental effect). Nor did the programme significantly reduce employee turnover among FCs. This leads to the conclusion that, contrary to the developers' claims, Optimism ABC did not "increase production and career longevity" (Foresight, 1990). Of course, it could be argued that productivity data supplied by the Prudential - monthly commission data with "clawbacks" for lapsed policies - was not the most precise measure of sales performance. This is acknowledged, but the employee resignation outcomes are unequivocal. There is also the possibility that the programme

may have been beneficial for the lower commission earners. This is consistent with the diathesis-stress hypothesis of the RLH theory, and refutes the claim of the Optimism ABC course developers that the attributional intervention is a general inoculation programme for all insurance agents, regardless of productivity. However, the effect, if it was a real one, dissipated after a few months (and notably only one month after the cessation of the maintenance programme), indicating that a stronger course effect is required for lasting changes.

Participants' views of the programme were mixed. The more experienced FCs, in general, indicated that Optimism ABC had little to offer them. Recently-appointed FCs and those experiencing difficulties with their work found the course more useful. Again, this suggests that the programme may be more appropriate for new agents or those experiencing work-related stress, rather than it operating in a general prophylactic way.

Pre-intervention learned resourcefulness positively predicted response to the Optimism ABC programme in terms of improvements in positive attributional style and psychological strain. In comparison with studies that have explored the ability of learned resourcefulness to predict outcome to cognitive-behaviour therapy, this result is consistent with Simons et al. (1985), Rehm et al. (1987) and Burns et al. (1994), but inconsistent with Jarrett et al. (1991b), Rude (1986) and Kavanagh & Wilson (1989). Burns et al. (1994) suggest that the discrepancies in results pertaining to learned resourcefulness may be due to variations in the severity of the psychological symptoms, and that the SCS predicts improvement from cognitive-behaviour therapy in the more severely depressed patients. Yet, the subjects in this study were not suffering from severe depression. Differences between this intervention (a psycho-educational CT-based attributional training programme for the workplace) and one-to-one cognitive therapy may be another reason for some of the discrepancy in results. Clearly the role of learned resourcefulness as a predictor of response to cognitive therapy requires further investigation.

Self-esteem, as measured by Rosenberg's Self Esteem Scale (1965) was found to be another prognostic indicator, although it predicted outcome in terms of negative attributional style and commission earned. However, there were problems of restricted

range in this scale (and with the General Health Questionnaire too) This may have been due to the nature of the scale (the Rosenberg Self esteem Scale focuses on only one aspect of self esteem - self acceptance), and the type of respondents in this study (insurance sales representatives may need to have a high degree of self acceptance) It may also be due to the subjects' 'faking good', as demonstrated by their high scores on the Social Desirability Scale

As far as the Insurance Attributional Style Questionnaire is concerned, these results only tentatively add to its validity as a measure of domain-specific attributional style Clearly, further psychometric analyses are needed But Warr, Cook & Wall (1979), skilled in the development of psychological instruments, warn that it is not always possible within the span of a single research project to develop and fully validate a research instrument

"Adequate measurement of complex psychological states usually requires an iterative process, researchers must move several times between conceptualisation and operationalisation, adjusting their ideas and measures as they go" (Warr, Cook & Wall, 1979, p129)

I look forward, therefore, to the opportunity to further use and test this instrument

In terms of the Optimism ABC programme itself, several reasons can be suggested for its failure to fulfil the claims made by its developers (methodological considerations aside) Despite the revisions made to the Optimism ABC programme, the participant feedback indicated that the course was still too academic and didactic Furthermore, I would suggest that it allowed insufficient time to socialise the participants to the cognitive model Many of the delegates were still unreceptive to the programme by its conclusion It was unlikely, therefore, that these FCs would put the strategies into practice back in the workplace, which, in fact, was borne out in the results Given that, for some insurance agents, a cognitive approach to analysing one's selling skills is very new and foreign, more course time and structured experiences are necessary to allow them to become familiar with the cognitive model, to adopt the cognitive-behavioural strategies, and to apply the strategies to their work Reference to both cognitive therapy procedures, and organisational training and development principles provide support for my contentions The average length of individual cognitive therapy is 12 to 20 one-hour sessions It is unlikely, therefore, that equivalent changes will occur as a result of an

applied 7-hour programme conducted in a group format. Organisational training and development principles (particularly the principles of adult learning) indicate the need for multiple opportunities for practice, and for assistance to apply the strategies to the job. Despite post-hoc attempts to include some of these practices into the programme (e.g. providing training for managers), little effect accrued, indicating the need for attention to such principles right from the initial stages of programme development. Lastly, I would suggest that Optimism ABC is not a general inoculation programme. If it is in any way effective in bringing about any attributional change, it is likely to be with a sub-group of agents, who are new or have experienced difficulty or failure at work. However, even with this group, the effects of the programme dissipated after 3 months, which calls into question the general efficacy of the Optimism ABC course, and indicates the need for substantial changes to it in order to bring about a lasting course effect.

In addition to the inherent weaknesses of the Optimism ABC programme, there were methodological limitations in the evaluation study, which further diminished the impact of the programme.

- 1 First, the organisational setting imposed restraints on the design of the study and necessitated the forfeiture of some experimental control. The attrition of sample size was a particular problem. It reduced the statistical power of the study, which inhibited the detection of potentially significant effects.
- 2 Secondly, the design contained some threats to internal validity. It did not control for a placebo effect - the control group did not receive any type of intervention, and furthermore, participation in the programme acted as an incentive for subjects in the experimental group to complete the four questionnaires. On the positive side, the design did control for experimenter effect (the same two psychologists conducted all the programmes), the courses took place consecutively over a month period thereby reducing any bias caused by time, and they were standardised in format, mode of delivery, and time of delivery. Furthermore, bias due to testing effects was reduced by having subjects in both experimental and control groups complete the questionnaire batteries at the same points in time.

- 3 The use of two measures of attributional style (albeit highly correlated with adjustments made for differences) reduced the confidence with which conclusions could be drawn about the course outcomes in this important attitudinal domain

- 4 The training model on which ABC Optimism was based, whilst appropriate in the clinical domain, was not suitable for a corporate context. With its central focus on individual gains, it did not take into account organisational considerations, and therefore was less likely to be effective in this context. Despite efforts to fine-tune the model, to give it more of an organisational emphasis, nevertheless it constituted a major deficiency in the programme.

The above shortcomings were rectified in the next study, in which a new attributional training programme for the workplace was developed and evaluated.

In summary, this chapter has described the ABC Optimism programme, an attributional training programme for insurance agents developed by Seligman and his associates at Foresight Inc, USA. . The chapter commenced with an outline of the programme, and of the pilot evaluation conducted by Foresight. Next, the insurance context was described, and its relevance for an evaluation of the attributional training programme was highlighted. In preparation for the experimental evaluation, changes and additions were made to the Optimism ABC programme (as a result of piloting it in London) to enable it to conform more closely to a corporate context and to the principles of organisational training. The experimental study conducted to evaluate the programme was next described, from which conclusions were drawn about the efficacy of the programme. In addition, further analyses were conducted on the IASQ. The chapter concluded with an outline of some of the strengths and weaknesses of the research.

THE DEVELOPMENT AND EVALUATION OF AN ATTRIBUTIONAL TRAINING PROGRAMME FOR THE WORKPLACE

“Men are disturbed not by things but the views they take of them”

(Epictetus, 60 AD)

The evaluation study of the Optimism ABC programme described in the previous chapter highlighted a number of problems and limitations inherent in the course. Accordingly, a new occupational attributional training programme was written. This chapter describes its development, and the study undertaken to evaluate the programme.

6.1 DEVELOPMENT OF THE ‘MANAGING RESILIENCE’ PROGRAMME

Although inspired by the Optimism ABC programme, the Managing Resilience (MR) programme was developed afresh. Thoroughly grounded in the principles of cognitive-behaviour therapy and organisational training and development, MR aims to assist employees, through attributional change, to become more resilient when faced with adversity at work. Specifically, it teaches cognitive strategies (in particular, how to identify and modify attributions about success and failure) and work practices that are designed to enhance psychological health, productivity and job retention.

The Programme

MR is a psychoeducational group treatment programme. It consists of a seven-week course (one-three hour session per week), followed by a six-week maintenance programme, and concluded with a follow-up session three months later. A 21 hour intervention, the programme was written to conform to the average length of cognitive

therapy (typically 12 to 20 one-hour sessions) Consistent with cognitive therapy procedures, it is conducted over a number of sessions, rather than as a continuous three-day intervention, to allow the skills to be practised at work between the sessions, and thus consolidated To facilitate standardisation of the programme for the purposes of empirical evaluation, a Leader's Manual was developed It provides a detailed outline of each module of the course, including leader's notes, overhead transparencies, handouts and worksheets, homework assignments, participants' workbook, as well as the maintenance programme, the follow-up session and the course reaction form (see Appendix VII, separate volume)¹

Cognitive therapy has been shown to be most effective when there is a match between clients' expectations and the cognitive model of change It is therefore recommended in the cognitive therapy protocol (Beck et al. 1979) that a good deal of time is spent at the outset socialising the patient to the cognitive model This feature was absent from the Optimism ABC programme (with a number of adverse consequences which were outlined in the previous chapter), but considerable emphasis is placed on it in the MR programme A large part of the first and second sessions of the course is allocated to familiarising the participant with the cognitive emphasis of the programme, such as establishing the link between antecedents, beliefs and consequences, and exploring the impact of individuals' thoughts about a situation on their emotional and behavioural reaction to it Another preliminary step in the clinical practice of cognitive therapy, and in organisational training programmes too, is the specification of the client's problem list and goals for therapy (or training) This important component is incorporated into the MR programme as an exploration of individual course expectations and goals Both cognitive therapy and training also place emphasis on seeking the client's feedback about the session, a feedback mechanism is built into each session of the MR course

In contrast with the Optimism ABC course, but again in line with cognitive therapy practices, the behavioural strategies are introduced early in the MR programme They are specifically customised to the client group, and are designed to help the delegates to experience initial improvements in mood and behaviour by generating mastery and success experiences in their work They also form the framework on which the cognitive

¹ I am grateful to Foresight Inc for permission to use selected pieces of artwork and adapt certain course activities (specified in the MR Leaders Manual) from the Optimism ABC programme

strategies are later introduced. Presented as a series of small experiments, the behavioural techniques include goal-setting, planning (the work equivalent of activity scheduling), graded task assignments, time management, mastery and pleasure monitoring and scheduling.

The cognitive strategies are introduced sequentially, with appropriate advance organisers (in contrast to the Optimism ABC course where they receive no preparatory groundwork). They too are customised to the client group. It is recognised that, initially, clients are often unaware of their automatic thoughts, so a considerable amount of time is spent at the outset in helping delegates, through a variety of activities, to identify their thoughts. Homework assignments are used to promote the recognition of thoughts between sessions. Consistent with cognitive therapy, and in contrast with Optimism ABC, no attempt is made to challenge the validity of participants' thoughts in these initial sessions. It is not until the third session that strategies are introduced for evaluating the reasonableness of automatic thoughts, and for challenging unhelpful thinking.

Once participants have mastered the strategies of evaluating and challenging their thoughts, the topic of attributional beliefs is introduced. Again, because of participants' unfamiliarity with these notions, the group leader introduces them didactically first, describing the different attributional dimensions and their consequences. Next, the clients are assisted to apply the information to their own situations. This does not usually take place until the fifth and sixth sessions (see Course Outline below). Also towards the latter part of the course, the downward arrow technique (the "Iceberg Technique") is briefly introduced to help clients to identify and modify underlying beliefs that may be predisposing them to unhelpful thoughts and thinking errors.

The final sessions focus on preparing the participant for the conclusion of the course. Similar to the practice of cognitive therapy, time is spent in the MR programme reviewing the therapeutic concepts and skills that the client has learnt during the programme, so that they may later be employed in a maintenance or preventive manner. Strategies are practised and consolidated, potentially problematic future situations are identified, and plans of action are developed to overcome the obstacles. In line with

cognitive therapy, the aim is for the delegates to take on greater responsibility, so that by the end of the programme they are able to function as their own “psychologist”

Not only is the content of the Managing Resilience programme modelled closely on cognitive therapy, the processes are too. The role of the course leader is designed to be facilitative, not didactic. As with cognitive therapy, the process is one of active collaboration between the leader and the delegates. The aim is to keep instruction to a minimum, and to present the programme as a process of shared investigation and experimentation. It is intended that the majority of the leader’s remarks be framed as questions (to facilitate the elicitation of participants’ thoughts) and, therefore, the key strategies used are Socratic questioning, rather than directive or exhortative questioning, and active listening. Participants are encouraged to take a ‘scientific’ approach to the course content, and to view their thoughts as hypotheses to be tested out via behavioural experiments.

In addition to its cognitive therapy infrastructure, the MR programme is underpinned by an organisational model of training and development. Optimism ABC, although claiming to be a corporate training programme, lacks this essential feature. Recognising the vast array of organisational influences on employee well-being and work performance, MR takes into account the organisational context, and includes, in addition to individual employee’s needs, a broader focus incorporating organisational goals. Furthermore, the MR training is specifically designed to link with delegates’ jobs. As part of the course development process, a job analysis is undertaken within each occupational group in which the programme is to be used. The essential tasks and behaviours associated with the role are isolated, and the course components are constructed from them. On-the-job application of course elements is not left to chance as it is in the Optimism ABC programme, work-focused tasks and mechanisms to promote transfer of training to the job are programmed throughout the course.

The involvement of managers and supervisors, key people in the employee’s job context, is also sought in the MR programme (see Maintenance and Generalisation of Course Effect below). Managers play a crucial role in the transfer and maintenance of training by employees: they can undermine the training by being dismissive of it, or enhance the

course effects by acting as mentors to help employees apply the course strategies to the job. By involving them in the MR programme, it was hoped to minimise the former and maximise the latter. There may also be additional benefits: managers' personal attributions concerning their employees' work can have a deleterious effect on the employees' affect, behaviour and performance, as described in the research paradigm in Chapter 4. Although the MR programme is not a dual-focused intervention (it does not aim to change managers' attributions about employees), the involvement of managers in the programme may have a secondary benefit in terms of adding to the causal antecedent information available to the manager, or in other incidental ways, helping to change the manager's attributions about the employee's work behaviour (for example, the manager may see that, having attended the MR programme in an attempt to redress work problems, the employee is not lacking in effort, and that his/her performance failures are due to other factors). This, in turn, may support the changes in attributional style made by the employee as a result of the MR programme.

The MR programme incorporates a sound training methodology based on learning and instruction principles. Following a sequence of spaced rather than massed learning, the programme endeavours to employ a feedback system of instruction (learners' responses to the material determine the subsequent introduction of material). Each strategy in the MR programme is presented according to a graded hierarchy designed to facilitate learning.

- The technique is explained using everyday examples. Discussion and questions are elicited.
- In syndicates, the delegates then try out the technique, using carefully prepared activities that are non-threatening and non-personal, but related to their situation (often in a humorous way).
- The delegates then work individually on an activity designed to assist them to apply the technique to a personal issue. The facilitator provides one-to-one assistance and support.

The technique is practised during the week as a specific homework task²

² Graded hierarchies from the objective to the more personal, such as this, are also used in cognitive-behavioural therapy.

In this way, it is anticipated that the learning will move from declarative knowledge through compilation to proceduralised, automatic knowledge, ready to be transferred to the job

Homework forms an integral part of the programme not only does it enhance training efficacy, it provides opportunities for “testing-in-reality”, a requirement of adult learning programmes, and it is the key mechanism to facilitate transfer of training to the job. As with all components of the programme, the rationale for homework assignments is firmly based on cognitive theory and organisational training and development. To facilitate the completion of homework tasks, cognitive rehearsal is used, “*the technique of asking the client to imagine each successive step in the sequence leading to the completion of the task*” (Beck, et al., 1979, p135). By rehearsing the sequence of steps leading to a successful outcome, the participant is assisted to pay attention to the essential features of the activity, thereby increasing the likelihood of the homework being completed successfully.

In line with the psychoeducational nature of the MR programme, a variety of training processes are used, including group discussions, Socratic questioning, self-observation, experimentation, structured tasks, individual and syndicate group activities, mini-lectures and homework assignments. In addition, the group format of the MR programme provides incidental opportunities for observational learning, modelling, social reinforcement and social support, as well as a source of consensus information to aid accurate attribution formulation. The energy and momentum of the sessions is maintained by the use of varied learning activities, the interspersing of energy-building tasks, and, because the material is new for many and possibly a little threatening for some, intellectual and emotional stocktaking. In line with the cognitive-behavioural emphasis in the MR programme, the group dynamics are constantly monitored, but processes typical of traditional group treatments such as cohesion, dominance, alliance and leader-client transference are not included.

A workbook for participants, ‘Blueprint for Success’, is used throughout the programme (see copy in MR Leader’s Manual attached). It is designed to assist delegates to develop mental models for organising the new knowledge and applying it to their work.

situation. Sometimes participants are asked to formally complete activities in the workbook, often they are encouraged to elicit from the session ideas or strategies that may be useful for them or their work, or areas they would like to consider further. The Blueprint is also designed to help them to improve their meta-cognitive skills through reflecting on their thinking and learning. (This is conducted as a structured task at the end of each session when participants are asked to reflect on the session - what they have learnt, what they have found out about themselves - and note their thoughts in the workbook.) In the last course session, delegates review their Blueprint notes, and develop a personal action plan for the future.

Course Outline

The MR programme consists of seven sessions. Each session follows a standard format:

- 1 Review of previous session
- 2 Discussion of homework assignments, using a problem-solving and cognitive approach, e.g. participants are asked whether they had any task-impeding cognitions about doing the homework
- 3 Presentation of session topic (see session outline below)
- 4 Multiple opportunities for practice, feedback and reflection
- 5 Negotiation of weekly homework tasks
- 6 Summary of the session (by trainers or individual participants)
- 7 Survey of participants' response to the session

The seven course sessions (Figure 6.1) are structured in a graded hierarchy, such that each module builds on the previous one, thereby ensuring that pre-requisite skills, understandings and abilities are present. The content of each session is as follows:

Session 1 is devoted to discussion of participants' goals for the course, clarification of course expectations, negotiation of the course ground rules, discussion of the rationale for the programme, introduction to the cognitive model and its relationship to work-related attitudes and behaviour, and some preliminary instruction in self-monitoring, including mastery and pleasure monitoring.

Figure 6 1

M.R. ATTRIBUTIONAL TRAINING PROGRAMME

LENGTH	21 hours
STRUCTURE	7 3-hour sessions, one per week 'Homework assignments between the sessions to assist experimentation with, and application of, strategies
CONTENT	<p>Session 1 Introduction to the Cognitive Model</p> <p>Session 2 Automatic Thoughts, Goal-Setting, Time Management, Task Breakdown</p> <p>Session 3 Thought Recording, Common Thinking Errors, Activity Scheduling</p> <p>Session 4 Techniques to Change Unhelpful Thinking</p> <p>Session 5 Gaining Access to Deeper Beliefs, Attributions</p> <p>Session 6 Dimensions of Attributional Thinking, Applications to Personal and Work Situations</p> <p>Session 7 Integration of Strategies, Action Planning, Relapse Prevention</p>
TRAINING PROCESSES	Socratic Questioning, Group Discussions, Self-Observation, Experimentation, Individual and Syndicate Activities, Homework Assignments
SESSION FORMAT	<ul style="list-style-type: none"> * Review of Previous Session * Discussion of Homework Assignments * Introduction of Session Topic(s) * Individual and Syndicate Activities * Feedback, Discussion and Reflection * Suggestion of Weekly Homework Tasks * Summary of the Session * Survey of Delegates' Response to the Session

Session 2 focuses on socialising the participants to the cognitive model through a variety of approaches and activities. In addition, a number of behavioural techniques, such as goal-setting, time management and graded task breakdown, are taught.

Session 3 introduces the concept of thought records, and teaches participants how to identify and record their thoughts. The notion of helpful versus unhelpful thinking is also introduced, and some common thinking errors are presented.

Session 4 teaches participants how to challenge unhelpful thinking. Delegates are taught to ask themselves four questions regarding their automatic thoughts:

- What is the evidence for and against this thought?
- Are there alternative explanations for this thought?
- Am I making any thinking errors?
- What action can I take?

The session also includes some distraction techniques for use when challenging techniques are not appropriate.

Session 5 is primarily concerned with the elucidation of three dimensions of attributional beliefs - locus, permanence, pervasiveness - and their relationship to success and failure. The "Iceberg Technique"³ is also introduced to assist participants to gain access to deeper thoughts and assumptions.

Session 6 aims to consolidate participants' knowledge of the dimensions of attributional beliefs, and to apply the dimensions to work situations. A proforma to weave the techniques into participants' individual work situations is introduced. The session also includes an analysis of video-taped interviews with others in the same occupation, from which attributional statements are elicited and evaluated.

Session 7 focuses on integration, maintenance and relapse prevention. It includes the application of MR strategies to issues wider than work, and to the handling of objections from clients. Participants' course goals are revisited, individual changes over the course of the seven weeks are charted, and action plans are formulated.

³ Equivalent to the downward arrow technique used in cognitive therapy, the Iceberg Technique, with permission from Martin Seligman, was modified from the Optimism ABC course.

Three phases can be distinguished in the seven week programme

- The first phase consists of socialising the participants to the cognitive model, assisting them to be aware of their thoughts and feelings, and the impact of their thoughts on their feelings and behaviour. Simple behavioural experiments are also conducted to improve work-related affect and behaviour.
- The second phase is aimed at helping the participants to identify and evaluate their cognitions, specifically their attributions, and to modify unhelpful cognitions.
- The third phase of the programme focuses specifically on issues of maintenance and generalisation of effect.

Maintenance and Generalisation of Effect

Because MR training is not carried out on the job, special attention was paid in the design of the programme to issues of transfer of training and maintenance of course effect. A number of strategies were built into the programme to facilitate this process, in addition to the specific focus on maintenance and generalisation in the third phase of the programme. For example, when a new skill is introduced in the course, it is practised in the session in a variety of formats (e.g. syndicate activities, individual exercises) before being assigned as a task to be completed during the week on the job. To further assist the maintenance and generalisation process, the delegates' managers are given a short overview of the MR programme, and are briefed as to how to assist their employees to apply the course techniques and activities to the job (see Notes to Sales Managers in Leaders' Manual, Appendix VII). Furthermore, where possible, training is conducted at the meta-cognitive level, "the awareness and monitoring of one's own cognitive processing" (Turk & Salovey, 1985a, p12). Emphasis is placed on three areas of meta-cognition: self-perception and self-monitoring, awareness of what cognitive resources can be used in solving particular problems, and awareness of how a path of action towards goal attainment is determined (Flavell, 1979). As well, participants are encouraged to become their own "psychologist". They are helped to own the intervention, and to take responsibility for their individual improvement, so that, should problems arise in the future, they have the resources (and the accompanying self-efficacy) to intervene. Lastly, a six-week post-training maintenance programme was developed to assist delegates to apply the MR material to their work, and to facilitate

maintenance of course effect. Similar to the maintenance programme added to the Optimism ABC programme, it is designed to fit unobtrusively within the work schedule of course delegates. Over a period of six weeks, whilst engaging in their regular monitoring of key activities at work, delegates are asked to take note of the causal ascriptions they assign to their work outcomes, evaluate their helpfulness, and modify where necessary. A form was designed to support this “Activity Analysis” (see MR Manual), which delegates return to the course leader weekly for feedback.

A number of components described by Lewinsohn & Clarke (1984) as critical to effective short-term cognitive-behavioural interventions are incorporated into the MR programme.

- An elaborated well-planned rationale is provided in the initial session to guide the participant to the belief that s/he can control his/her motivation, resilience, and work-related behaviour.
- The intervention provides training in both cognitive and behavioural skills that are relevant to the participants' work, and which the participants can utilise to feel more effective in handling their work.
- The course emphasises the independent use of these skills by the participants outside of the course context, and facilitates such use of the skills through homework assignments.
- Attributions of improvement to participants' increased skill rather than to trainer skill are encouraged.

Thus, the goal of the MR programme is to teach clients to be more resilient, not only by learning new skills and ways of coping with the demands of their jobs, but by instilling in them a belief in their own effectiveness, and encouraging them, where realistic, to attribute success and improvement to internal, stable and global factors, and failure to temporary and specific factors. The trainer acts as a role model in this regard.

However, two caveats need to be issued at this point. First, Managing Resilience is not concerned with teaching participants to adopt pre-determined causal ascriptions. The aim of the programme is to help participants to make veridical attributions for events by examining more thoroughly the information inherent in each situation, and by considering attributions which may have been previously overlooked, particularly internal, stable and

global attributions for successes and temporary and specific attributions for failure. It is not about empty positive thinking, nor is it about the use of persuasion to bring about change to pre-determined attributions (c.f. previous attributional change programmes, see Chapter 2). Secondly, it is not intended that the MR programme be offered in isolation in organisations. If the employees do not have the necessary competencies to perform the job, their psychological robustness is inconsequential, poor performance and quitting are likely. Similarly, emphasis on job skills alone to the exclusion of psychological considerations such as resilience, is only half of the picture. The two facets need to be considered together for optimal work-related well-being, performance and job retention.

In summary, the MR programme is an attributional training for the workplace. Based on cognitive-behaviour therapy principles, it aims to effect attributional change through cognitive strategies, as well as mastery and vicarious experiences, rather than through persuasion. Whilst the development of the programme was inspired by the Optimism ABC programme, MR incorporates a number of key additional features: a thorough grounding in the principles of organisational training and development, systematic and sequential development of the cognitive-behavioural strategies throughout the programme (in line with the CBT protocol), training spaced over a number of weeks, with cognitive and behavioural assignments between sessions, and a six-week post-training maintenance programme.

6.2 EVALUATION OF THE MANAGING RESILIENCE PROGRAMME

The Context

To allow comparison with the Optimism ABC programme, the insurance industry was chosen as the context in which to conduct this evaluation. As outlined in the previous chapter, insurance selling is an occupation replete with adversity and failure, and a great deal of psychological resilience is required to survive. Many sales representatives do not. The RLH theory predicts that a critical factor is the individual's attributional style: pessimistic attributional style, coupled with rejections and failure, predisposes to lower

response initiation and giving up. In the insurance industry, this translates into fewer sales attempts, poorer sales and quitting. Insurance selling is therefore particularly well-suited for the investigation of an attributional change programme.

Pearl Assurance, a major British insurance company, agreed to provide the subjects and facilities for the research project. The company had recently been taken over by AMP, a large Australian insurance company, and extensive changes were being imposed throughout the organisation. Productivity and turnover in the sales force were issues of concern organisationally, and new large-scale approaches were being sought to assist with these goals.

Pilot Study

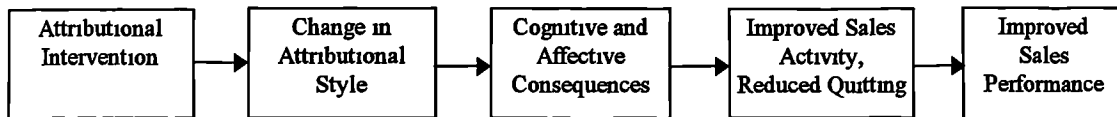
A pilot study of the programme was run in the A Division (East London and Essex) in March/April 1992. Thirteen Sales Representatives attended the course, and although data were not collected, the feedback from participants and anecdotal reports from their managers were particularly good. Moreover, a post hoc analysis of the sales figures of course participants indicated that, in comparison to the remainder of the sales force in the division, their performance had improved. On the basis of the outcomes of the pilot course, the decision was made by the company to proceed with the substantive study.

6.3 THE RESEARCH MODEL

The Managing Resilience programme is designed to bring about attributional change. In the presence of work stressors, it is predicted that the changes in subjects' attributional style will result in more internal, stable and global attributions for work-related successes, and more external, unstable and specific attributions for failures, which will lead to a number of cognitive and affective outcomes, as well as to improved work behaviour and performance. Applied to the job of selling insurance, in which a substantial amount of rejection and failure is met, the model (Figure 6.2) anticipates that changes to the attributional style of insurance sales representatives will result in less psychological strain and intentions to quit, higher professional self-esteem, success

expectancies, motivation and job satisfaction, which in turn will lead to improved sales activity, more sales and greater job retention

Figure 6 2 Attributional Intervention Model Insurance Context



Research Aims

The aims of this study were to

- Evaluate the effectiveness of the Managing Resilience programme in terms of its effect on attributional style, its psychological benefits and its impact on the selling activity, sales performance and quitting of insurance sales representatives
- Elicit the views of the course participants about the usefulness of the Managing Resilience course for their work

Hypotheses

In comparison with a group of waiting-list control subjects, it was hypothesised that

- 1 Subjects who received the Managing Resilience programme would exhibit improvements in attributional style, professional self-esteem, job satisfaction, motivation, success expectancies and psychological health as well as a reduction in intention to quit, that the improvements would persist, and would positively affect employee turnover, sales activity and sales performance
- 2 The above effects would be replicated when the waiting-list control group completed their training
- 3 The outcomes of the Managing Resilience programme (in terms of change in attributional style, psychological strain and sales performance) would be predicted by subjects' initial learned resourcefulness
- 4 All subjects potentially could benefit from the Managing Resilience programme, not just those reporting high pre-intervention levels of psychological strain This

hypothesis relates to the potential for prophylaxis provided by the Managing Resilience programme As Hollon (1984) notes

"Clinical experience suggests that it is often difficult to engage clients productively in intensive therapeutic work when they are not actively symptomatic" (p146)

However, a vehicle such as the Managing Resilience programme may provide such an opportunity, and one that is not available with intensive psychotherapy or pharmacotherapy It was therefore of interest to ascertain whether the MR intervention could impart skills to relatively asymptomatic participants which would prevent or forestall subsequent emotional problems such as demotivation and depression

6.4 METHOD

Statistical Power

"The power of a statistical test depends on three parameters the significance criterion, the reliability of the sample results, and the 'effect size', that is the degree to which the phenomenon exists" (Cohen, 1977, p4)

Power calculations for the present study indicated that to achieve the convention of 80% power, with a .05 Type 1 error level and an effect size of 0.5 (based on the change in negative attributional style found in Prudential study⁴), 64 subjects were needed in each of the experimental and control groups for sufficient power to detect a group difference if one existed (Dallal, 1988) To prevent a repetition of the problems that occurred in the Prudential study, viz severe sample attrition which resulted in insufficient statistical power, the sample sizes were increased to 85 per group

The Sample

Sales Representatives (SRs) from four divisions of the Pearl Assurance Company participated in the study They were invited to attend the MR courses by their Sales

⁴ Because subjects' negative attributional style changed in the predicted direction in the Prudential study and positive attributional style did not, and furthermore, because there was an interaction between pre- and post-test in positive attributional style, it was decided to restrict the power calculations to negative attributional style

Managers, who had attended a briefing day conducted by the researcher. The MR course was recommended for Sales Representatives who were undergoing stress, were demotivated or experiencing failure, and who were interested in improving their resilience to the difficulties of selling.

The selection criteria for the programme were set in accordance with the RLH theory. A diathesis-stress theory, it postulates that a pessimistic attributional style acts as a vulnerability, which, if activated by stressful or unexpected events, will produce negative symptoms. In the absence of activating events, however, the pessimistic attributional style can remain dormant with no resulting deficits. Participants were therefore not selected on the basis of a pessimistic attributional style, but rather those who were deemed by their managers or themselves to be experiencing work-related stress were invited to attend. Predominantly, these criteria were interpreted by the managers to pertain to sales performance - sales representatives who, in the company's terminology, were going through a 'black patch', that is, having difficulties with their job, not reaching their sales targets etc, were typically invited to attend. (A post-selection check was carried to ensure that the criteria had conformed to the specifications of the RLH model, 71% of participants reported experiencing a 'black patch' in their jobs in the three months prior to the commencement of the study.)

Consistent with the educational philosophy of the course, and the occupational rather than therapeutic context in which it took place, exclusion criteria in the sample selection were kept to a minimum. SRs were not included if their performance problems were due to selling skills deficits (as discerned by their managers), rather than stress, demotivation or other psychological problems. It was also necessary for the subjects to have been in the sales representative role long enough to have experienced the ups and downs that characterise the job, so that they could relate to the MR course content experientially rather than just theoretically. Therefore, newly appointed SRs (<6 months tenure) were also excluded. Because of the corporate context in which this research study took place, participants were not screened for emotional or psychiatric problems, although it is recognised that such problems could have a negative impact on the outcomes of the intervention. Therefore, a brief questionnaire was included in the pre-course questionnaire battery to ascertain whether participants were currently experiencing any

significant personal problems (e.g. in the financial / legal / relationship / family areas) Post-hoc analyses indicated that the incidence of adverse personal circumstances was spread equally between the experimental group and control group

One hundred and seventy-two Sales Representatives came forward to participate in the programme. They were 98% male, with an average age of 36 years, and average length of tenure of 6 years

Research Design

Attention has been drawn in the training evaluation literature to the possible contaminating influence of subjects' attitudes on training outcomes, particularly subjects who have been allocated to a control condition and who realise that they will not receive any benefit from the programme. Studies have shown that they can become resentful or demoralised about the more favourable treatment being given to the training group, and behavioural changes or performance decrements can result (Goldstein, 1993). Certainly our experience in the Prudential study was similar: the control group, who did not receive any training, displayed a noticeable lack of commitment to the study and its requirements. To avoid a threat of this type to the validity of the experiment, a waiting-list control group design was used in the present study. Such a design has several advantages. The waiting-list control subjects, knowing that they are to receive the training after the first series of courses are completed, are more likely to fulfil the additional requirements of the study, such as questionnaire completion. The design also controls, to some extent, for the occurrence of placebo effects resulting from subjects' expectations about the benefits of the intervention. It is acknowledged that a matched control course, conducted concurrently with the MR programme, would have enabled a tighter control of random effects accruing from the experimental intervention, but such rigorous controls are difficult to implement in organisational research, companies are unlikely to agree to the expense of sales agents forgoing selling time to attend a course with little expected benefit.

A stratified research design was used in the study. The one hundred and seventy-two subjects were from four Pearl Divisions - A, B, X and Y - which were all located in

south-east England. Subjects were randomly allocated to experimental and waiting-list control groups within each Division ($n = 81$ and $n = 91$ respectively)⁵. Thus, random variability caused by subjects working in different divisions, each with its own manager, ethos and variations due to geographical location, was reduced. The data analysis reflected the stratification in design (see Analysis and Results below).

Twelve Managing Resilience courses were conducted: six courses initially for the 81 subjects allocated to the experimental group, and six courses, six months later, for the 75 remaining control group subjects⁶.

The Intervention

Consistent with the organisational model of training and development underpinning this research, a number of strategies were implemented to link the MR programme to the Pearl organisational context:

- First, the support was gained of each of the four Divisional Managers in whose divisions the courses would be conducted. Each one was visited in turn, and the programme was outlined in detail. Their suggestions were sought as to how the programme should be fine-tuned for the Pearl, and what emphases they would like in it. I then attended their respective communication meetings, and did the same for their District Managers.
- To ensure that the programme reflected the Pearl culture and practices, a Pearl trainer worked with me to customise the programme. In addition to including the Managers' suggestions above, the process involved undertaking a job analysis of the Sales Representative's role, and developing course examples, activities and homework assignments to reflect it. Where possible, existing company practices were incorporated into the programme. For example, a Pearl activity monitoring tool the 'Hundred Points System' was included for Sales Representatives to monitor their weekly activity.

⁵ To ensure groups of approximately equal size by the end of the study, extra subjects were assigned to the waiting-list control group in the random allocation to allow for sample attrition (through resignations and withdrawals) during the 6 months prior to the control group's training.

⁶ By the time the courses for the waiting-list control group were conducted, the group had reduced in size to from 91 to 75. Ten Sales Representatives had left the company, three had withdrawn from the study, and a further three had withdrawn pending resignation.

- Four Pearl Trainers⁷, one from each of the divisions in which the MR training took place, acted as co-trainers in the courses, in order to reinforce the links with the organisation during the delivery of the programme (see Trainers below)
- A number of one-day overviews of the MR programme were conducted for the Sales Managers in the four Divisions. At these times, a profile of the programme and a sample of some of the course content were provided, and I outlined to the Sales Managers their role in the programme in terms of providing specific support for the Sales Representatives, in order to facilitate the application of the MR strategies to the workplace. (Invariably after each of the overview days, there were requests from the Sales Managers to attend MR courses themselves.)

The Trainers

To ensure that the training was standardised, all twelve of the seven-week courses were conducted by the same psychologist trainer. I was assisted in each course by one of the four company Trainers allocated to the project. This offered several advantages. The Pearl Trainers understood the culture of the company, and were able to customise the programme in an ongoing way throughout its delivery. Furthermore, having two course facilitators allowed one to work with the group, or with a particular delegate, whilst the other monitored the reactions of the remaining group participants. It also allowed one trainer to review the delegates' homework sheets (and thereby suggest directions for the session to take, or issues to be included in the session), whilst the other devoted his/her full attention to the training. Each Pearl Trainer worked only on the courses attended by Sales Representatives from his particular Division. This provided opportunities for the Trainers to monitor the progress of their Sales Representatives between sessions of the programme, and during the course of their normal daily work.

With four different Pearl Trainers involved in the programme, the possibility of a differential trainer effect on outcome is acknowledged. However, in a study designed to identify therapist variables which might be related to treatment outcome in a psycho-educational group treatment context, Antonuccio, Lewinsohn, & Steinmetz (1982) found that participant improvement was unrelated to leader characteristics, even though their

⁷ The trainers were all Sales Managers who had been seconded to the training role

eight leaders differed significantly on many important variables (e.g. therapist warmth, therapist enthusiasm, therapist expectations, on-task activity). The authors concluded that once appropriate training is completed, individual differences among leaders have no appreciable effect on treatment outcome. This conclusion is supported by Dush et al. (1983), who found in their meta-analysis of 69 cognitive-behavioural studies, that therapist experience did not consistently enhance therapeutic gains. In light of these findings, and the fact that the four Pearl Trainers acted as assistant trainers in this study (with the main training role undertaken by just one person), the possibility of a differential trainer effect on outcome was deemed to be minimal.

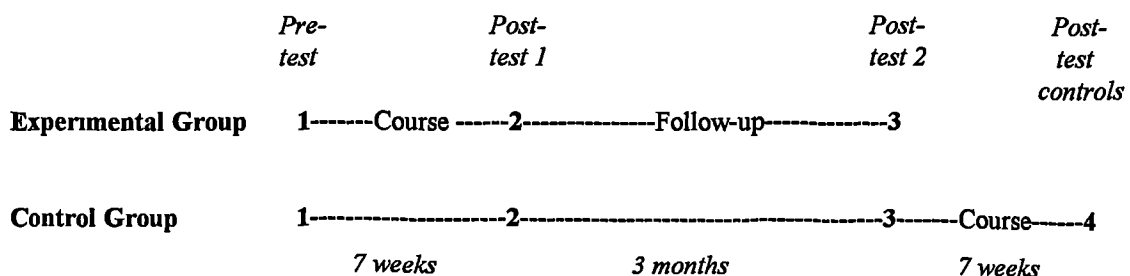
The Pearl Trainers all received eight hours of direct training in the cognitive-behavioural strategies underpinning the MR programme (a short "Train the Trainers" course that I wrote together with a colleague, Dr Melanie Marks). In addition, the Trainers received indirect training "on-the-job" during the briefing days for managers and during the courses themselves.

DATA COLLECTION

Measurements were taken at four points in the study (Figure 6.3)

- 1 pre-course
- 2 upon completion of the first series of courses (post-test 1), to assess immediate effects
- 3 three months later (post-test 2), to test for maintenance of effect, and to provide a baseline for the waiting-list control group
- 4 at the end of the second series of courses, i.e. some 5 months after post-test 1

Figure 6.3 Research Design



Outcome Measures

To gain a comprehensive evaluation of the programme, four levels of outcomes were measured, as per Kirpatrick's typology (Chapter 3) trainee reaction, attitude, behaviour and performance. In addition, a variety of methods, including self-report, behavioural monitoring and objective performance data, were used to measure outcomes, in an attempt to minimise problems associated with monomethod bias. The specific instruments used in this study were outlined in detail in Chapter 4 'Methodology', and are listed below. Additional measures, necessitated by the particular features of this study, are described in detail, along with the justification for their use.

1. *Participant Reaction*

Course Reaction Forms as described in Chapter 4 (and attached in Appendix I) were completed anonymously by subjects at the end of the seven-week courses. Feedback was sought on the quality of the course in general and in relation to subjects' professional needs, as well as on the course content and method, the training process, and the course environment (training room, equipment, catering etc.)

2. *Attitudinal Measures*

• *Attributional Style*

The Insurance Attributional Style Questionnaire (IASQ) was used to measure subjects' attributional style in this study, rather than the Attributional Style Questionnaire (Peterson et al., 1982). The rationale for its use centres on three issues. First, quite a deal of criticism had been expressed by insurance agents in previous experimental and pilot studies about the inappropriateness of some of the ASQ items (The ASQ was developed for college students, and the items about dating were found to be particularly unacceptable). The IASQ items, by comparison, have face validity, as they pertain specifically to insurance selling. Second, the diathesis-stress model of hopelessness depression (Abramson et al., 1989) predicts that pessimistic attributional style *in a particular content domain* provides a specific vulnerability to depression when associated with stressors *in the same content domain*. The stressors under consideration

in this study were work-related (and specifically related to the task of selling insurance), therefore a domain-specific measure of attributional style was warranted. Third, although further psychometric analysis of the IASQ is needed, there is some evidence to suggest that the scale has adequate psychometric properties. The internal consistency of the two IASQ subscales in this study was Cronbach's $\alpha = .89$, Cronbach's $\alpha = .91$.

- *Self-Esteem*

In the previous study with insurance sales agents, problems of restricted range in scores occurred with Rosenberg's Self Esteem Scale: most subjects scored at ceiling. This may have been due to the nature of the scale (it focuses on only one aspect of self-esteem, self acceptance) and/or the type of respondents (insurance sales agents may need to have a high degree of self-acceptance). Accordingly, a broader measure of self-esteem, encompassing work self-esteem, was sought for the present study. A thorough search through the literature, however, failed to find a suitable instrument. Consequently, an existing work self-esteem scale was customised and extended. Quinn & Shepard's (1974) Self-Esteem at Work Scale is a four-item scale designed to measure self-esteem in a job-related context. The items consist of bipolar adjectival descriptors separated by a seven-point continuum, on which respondents indicate how they see themselves in their work. The four items, successful-not successful, important-not important, doing my best -not doing my best, happy-sad, are scored 1 to 7, and an average is taken. Psychometric data for an initial study of 1496 subjects recorded a mean score of 6.01 (s.d. 0.96), with a coefficient alpha of 0.70, and correlations of -0.44, 0.48 and 0.5 with depressed mood at work, life satisfaction, and overall job satisfaction. The first three items were used by Beehr (1976) in a study of 651 varied employees from five organisations. The reduced scale had an internal reliability of 0.68, with correlations of -0.31 with depressed mood at work, and 0.25 with job satisfaction.

In the present study, the three-item scale⁸ was extended to include a further three items: capable-not capable, effective-not effective, and confident-not confident. The additions were informed by theoretical considerations, as well as the nature of the occupational group being studied. The 'capable' dimension was included to gain a measure of

⁸ The fourth item in the original scale 'happy - unhappy' was not relevant in the context of this research study, and it might have detracted from the face validity of the whole scale with this occupational group.

subjects' professional self-belief. According to Bandura (1989), people's beliefs in their capabilities affect how much stress they experience in threatening or taxing situations, as well as their level of perseverance and motivation. This dimension is similar to the notion of self-efficacy, and, as an insurance-specific measure of self-efficacy was not obtainable, it was deemed appropriate to include self-appraisal of capability in the scale. Related to notions of self-efficacy and perceptions of one's capability are self-appraisals of effectiveness. This dimension is particularly important in the work domain for which the scale was needed. And finally confidence was included. This construct underpins many of the non-specific self-esteem scales (e.g. Rosenberg, 1965), and is very important in the work domain.

A post hoc analysis of the six-item Work Self-Esteem Scale indicated that it possessed good internal consistency (Cronbach's $\alpha = .9$), and that the items clustered together to form one factor with an eigenvalue of 3.05, explaining 51% of the variance (Principal Components Analysis with a Kaiser's unity criterion for extraction).

- *Psychological Strain*

The General Health Questionnaire (GHQ) 30 (Goldberg, 1972, 1978) was again used, with the normal scoring as well as the scoring to measure chronic psychological strain (GHQ(C)). Both are advantageous. There are an enormous amount of comparative occupational data available for the normal scoring of the GHQ. The advantage of the chronicity scoring is that the scale is less easily faked (the insurance agents in the Prudential study exhibited high scores on the Social Desirability Scale), and the scores are more normally distributed than with the regular scoring of the GHQ (there were problems of restriction of range in the GHQ scores in the previous study). The criteria for "psychiatric caseness" are scores > 5 (GHQ) and scores > 12 (GHQ(C)). The alpha coefficient of the GHQ in the present study was 0.93, and of the GHQ(C), $r = 0.92$.

- *Job Satisfaction*

The Overall Job Satisfaction Scale (Warr, Cook & Wall, 1979) was used to measure subjects' reactions to specific features of their job (Cronbach alpha in this study = 0.85). The additional item to measure general job satisfaction was again added.

- *Success Expectancies*

In order to gain a measure of subjects' success expectancies in their job, respondents were asked to rate how successful they expected to be over the forthcoming three months. This information was requested at two points in time: immediately prior to the commencement of the programme, and at the three-month follow-up point (at the completion of the programme). Expected performance ratings were on a ten-point scale, ranging from 1 (very poor) to 10 (excellent).

- *Intention to Quit*

The three-item scale developed by Guest et al. (1993) and used in the previous study was employed. In this study, it had an internal reliability of $\alpha = 0.68$.

- *Intrinsic Motivation*

The Intrinsic Job Motivation Scale (Warr, Cook & Wall, 1979) was again employed. However, in this study, the internal consistency of the scale ($r = 0.52$) was much lower than that found in the previous study (0.76), and also than reported by the scale developers ($r = 0.82$)⁹.

- *Learned Resourcefulness*

The Self Control Schedule (Rosenbaum, 1980) Cronbach $\alpha = 0.82$ in this study.

Consideration was also given to including a measure of social desirability responding in the questionnaire battery, as the insurance agents in the previous study demonstrated high scores on this variable. However, the effect was evenly spread across the two groups, and it did not create an impact on group outcomes. As the subjects were randomly allocated to groups in this study too, it was deemed unlikely that a social desirability effect would have a differential impact on group outcomes. In the interest of questionnaire brevity, therefore, it was decided not to include this measure.

⁹ One possible explanation is that this sample might have been more homogeneous than the samples in the other studies.

The individual scales were packaged to form one instrument with several parts. In line with research on the structure of questionnaires (e.g. Roberson & Sundstrom, 1990), biodata questions were placed at the end of the questionnaire, and the scales were sequenced according to their relevance to respondents and ease of completion. Modifications were made wherever possible to make the instrument user-friendly and easy to complete, for example, instructions were simplified, response keys were streamlined, and, occasionally, the order of items was changed.

An incentive prize draw was introduced to encourage subjects to complete and return all four questionnaires. It appeared to have the desired motivational effect: the return rate of questionnaires was approximately 90%. In addition, all subjects were offered (and, at the end of the study, received) individualised feedback about their questionnaires.

3. *Behavioural Measures*

- *Employee Turnover*

Resignation data were provided by Pearl Assurance Head Office for the period of the study and for a further 15 months, both for the two groups, and for a large group of non-participating controls ($n = 932$) from the same four company divisions, performing the same job and matched for length of service. (Data pertaining to sickness absence, a theoretically-related outcome, were not available, as Sales Representatives conduct their work from home.)

- *Sales Activity*

Three measures of sales-related activity were used. They were part of a company-wide sales activity analysis system, “The Hundred Points System for Sales Success”, which had been recently introduced into Pearl Assurance. The system aimed to assist sales representatives to plan and organise their work, and to monitor their weekly sales activity in order to gain an understanding of their prospecting strengths and weaknesses. The measures of sales activity were

1. number of people approached, for example, by telephone, door knocking or letter, in order to arrange an appointment for a sales presentation

- 2 number of appointments obtained for sales presentations A sales presentation involves a number of specifically delineated stages in the Pearl completing a client 'factfind', establishing client needs, recommending appropriate products or services, handling objections, closing the sale, obtaining referrals
- 3 number of referrals gained A referral is defined as 'a lead to a person as yet unconnected with the Pearl', and necessitates the Sales Representative gaining the signed permission of a client to use their name to approach the other person

For consistency, Pearl Senior Management requested that the same monitoring system be used in this research study This seemed a reasonable idea, particularly as the infrastructure for the system was already in place Unfortunately, practice had not kept pace with policy in the Pearl, and in reality, very few Sales Representatives were actually using the system in their day-to-day work Furthermore, it was discovered *after* the system had been incorporated in this study, that it had gained quite a negative reputation in the company (e.g. it was viewed as a remedial system for the 'failures', or alternatively as a punishment for bad sales figures), and so there was some resistance to using it

The rationale for, and importance of, monitoring their sales activity was explained to the Sales Representatives involved in the study They were asked to use the Hundred Points System for the duration of the project The monitoring period was for 24 weeks from six weeks prior to the commencement of the courses (baseline) to the 3 month follow-up Some refused to do this (unfortunately, the Hundred Points System was designed to involve the Sales Representatives' Managers and some Sales Representatives feared there would be retribution if their Managers saw their activity figures) Only 124 of the 172 subjects actually monitored the number of approaches and sales appointments they made per week during the project, and the data are incomplete for some Sales Representatives (despite the trainers' best efforts to encourage them) Further, very little data were collected on the number of referrals obtained per week (a reflection, I suspect, of Sales Representatives' avoidance of the task rather than an avoidance of monitoring), rendering this particular measure of questionable use In summary, the data in this area are incomplete, and their validity needs to be treated with caution

4. *Performance Measures*

- *Sales Productivity*

As recommended by Pearl senior management, sales representatives' productivity was measured by

- * number of sales made
- * premium value of policies sold

It was agreed at the outset of the study that these data would be supplied by Pearl Head office. However, when it came time to do this, the actual data supplied were not as agreed. Rather than issuing figures for each Sales Representative, the Pearl supplied data per agency (several Sales Representatives may have worked on the one agency). Furthermore, the actual data consisted of 'sales issued' rather than 'sales made'. Unlike the Prudential, which had a uniform one-month period between the sale being made and the policy issued, in the Pearl, the lapse varied between 1 week and 3 months. Pearl Head Office said that, despite earlier assurances, they could not supply the correct data. As a result, it became necessary for me to seek the data from each of the four divisions, or, if not available there, from individual district offices, and in some instances when they were not even available there, from the Sales Representatives themselves. This took months of work as some of the offices had lost their records, others didn't keep any records, and, even more startling, some SRs didn't keep a record of their sales either. Initial plans to dichotomise the outcomes into unassisted and assisted sales¹⁰ (it was predicted that sales representatives would require less assistance in selling as a result of the MR programme, which anecdotal reports from subjects confirmed), therefore, had to be put aside in the interest of gaining simple but valid data pertaining to the number and value of sales made. Eventually the data were obtained, although figures were not available for 12 control subjects who left the company prior to the second series of courses. For the remaining 160 subjects, data were obtained for the 3 months prior to the commencement of the first series of courses (baseline)¹¹, during the 7 week courses, for 3 months after the courses, and for the 7 weeks during the second series of courses.

¹⁰ Assisted sales are those in which the sales representative is aided by the sales manager or divisional sales specialist

¹¹ It was possible to employ a longer baseline period with these data than with the sales activity data, because the figures had already been collected, and therefore didn't require any additional effort on the part of the Sales Representatives

In addition, Pearl head office agreed, for a fee, to monitor the sales of all course participants (both experimental and control groups) in the longer term, and to compare them against the sales figures for non-participating Sales Representatives ($n = 911$) in the same four divisions. Comparisons were made for 18 months after the completion of the courses.

6.5 RESULTS

Data examination and analysis were performed using SPSS/PC+ Version 4 (1990). The results are reported below in six sections, as per the aims and hypotheses of the research.

- 1) Participant Reaction
- 2) Cognitive and Affective Outcomes
- 3) Behavioural Outcomes
- 4) Performance Outcomes
- 5) Prognostic Indicators: Managing Resilience Programme
- 6) MR Programme Potential for Prophylaxis

1) Participant Reaction

Subjects' feedback about the MR programme was very positive (Figure 6.4). The majority in both series of courses felt it had been beneficial, although interestingly, the benefits were felt at different times. For some participants, it was during the courses, others reported the major impact occurring after the course had finished. Many of the Sales Representatives noted that, after the course, they no longer procrastinated and that they viewed their job more positively. They reported increases in confidence, more creative approaches to disliked tasks such as asking for referrals, administration, cold calling, and improvements in home life too. Regular refresher courses were requested. A sample of typical participants' comments is presented on page 228.

Feedback from the Managers of the course participants was similarly positive (see examples of letters received in Appendix III). They reported improvements in attitude, activity and performance. Further, rather than just attributing Sales Representatives'

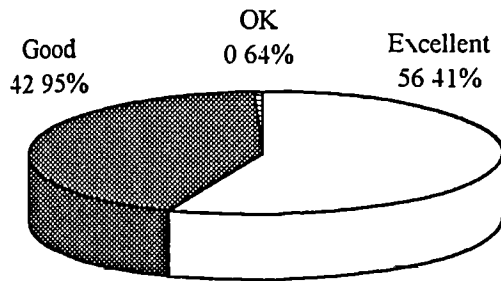
Figure 6 4

MANAGING RESILIENCE COURSES (SERIES 1)

PARTICIPANT FEEDBACK

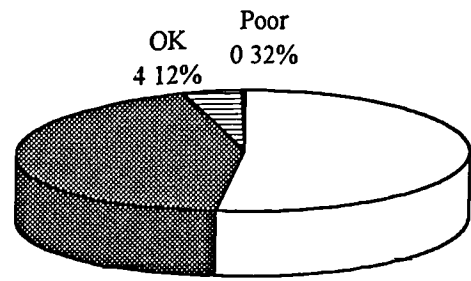
Total number of forms completed : 79

A: Overall rating

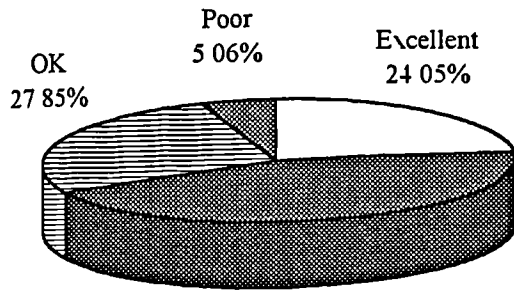


No participant selected 'Poor'

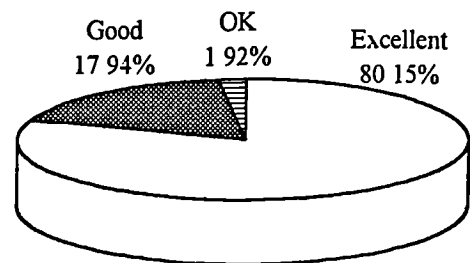
B: Use, relevance



C. Pace, length



D: Delivery, opportunity for questions



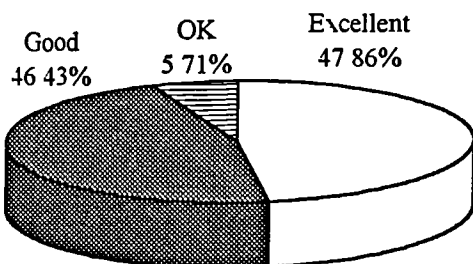
No participant selected 'Poor'

MANAGING RESILIENCE COURSES (SERIES 2)

PARTICIPANT FEEDBACK

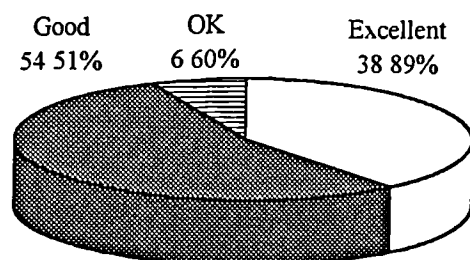
Total number of forms completed : 72

A: Overall rating



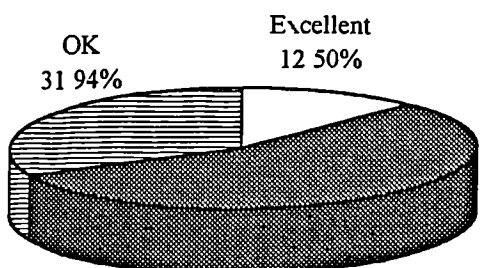
No participant selected 'Poor'

B: Use, relevance



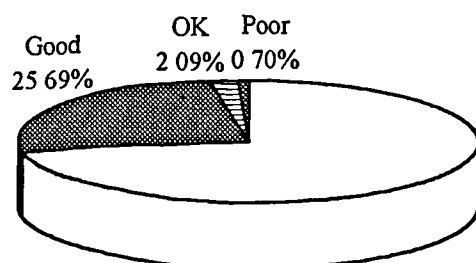
No participant selected 'Poor'

C: Pace, length



No participant selected 'Poor'

D: Delivery, opportunity for questions



poor performance to ‘attitude problem’, they were more correctly diagnosing strengths and weaknesses, and taking steps to provide remedial assistance

MANAGING RESILIENCE PROGRAMME

Participants’ Comments

-
- | | |
|---|---|
| 1 | “I am definitely more aware of my negative thoughts now, and less likely to take a knock-back personally I am not scared of knocking on doors - I have challenged my negative thoughts with helpful thoughts I am better at time management I am writing business The course made me look at myself ” |
| 2 | “ I am now more persistent, I am not taking ‘no’ for an answer, my planning has improved I feel more in control My aim is to double my income ” |
| 3 | “Previously, I had a mental block about cold canvassing Now I cold canvass two hours per week regularly ” |
| 4 | “I was £2000 below target during the course, and my Sales Manager and District Manager were putting a lot of pressure on me Now I am 110% effective ” |
| 5 | “My attitude is totally different The course came at the right time Before the course, I was thinking of leaving the Pearl, now I am a lot happier My activity has gone up, I listen more and catch and analyse my clients’ thoughts, I don’t worry that I am not going to reach my sales target My productivity is going to increase this year as a result of my attitude change ” |
-

2) Cognitive and Affective Outcomes

Analysis of covariance was used to test for differences between the experimental and waiting-list control groups resulting from the intervention This procedure assesses the main effects and interactions of factors after scores on the dependent variables are adjusted for differences associated with covariates It increases the sensitivity of the tests by reducing the error term, and therefore generally has greater power than analysis of variance A 2 (groups) by 4 (divisions) factorial design was used in the analyses, with pre-test scores as the covariates and post-test scores as the dependent variables

Before embarking upon the analyses, the assumptions underlying analysis of covariance were checked the relationship between each of the dependent variables and its corresponding covariate was assessed, and the slopes of the regression lines of post-test on pre-test scores in the experimental and control groups were tested for equality The MANOVA procedure (SPSS) confirmed that significant relationships existed between

each of the covariates and the dependent variables. The test of parallelism indicated that the regression slopes were equal in the following variables: Coneg (pre-test/post-test1), Work Self-Esteem (pre-test/post-test1, pre-test/post-test2), Faceted Job Satisfaction (pre-test/post-test1), Psychological Strain (pre-test/post-test2), Chronic Psychological Strain (pre-test/post-test2), Intention to Quit (pre-test/post-test1, pre-test/post-test2), Motivation (pre-test/post-test1, pre-test/post-test2), Success Expectancies (pre-test/post-test2)¹². With these variables, it was appropriate to test for group and divisional main effects using analysis of covariance. For the remaining variables, Copos (pre-test/post-test1, pre-test/post-test2), Coneg (pre-test/post-test2), Faceted Job Satisfaction (pre-test/post-test2), Psychological Strain (pre-test/post-test1), Chronic Psychological Strain (pre-test/post-test1), an interaction between group and covariate was found, indicating that the effects of the intervention were not consistent across all values of the pre-test variable. In these cases, the data were plotted to ascertain the exact nature of the slopes and the impact of the intervention. They were then converted to change scores by subtracting the pre-test score from each of the post-test scores for each variable. An analysis of the change scores was undertaken using analysis of variance¹³.

The results of the tests for group differences, presented in Table 6.1 and depicted graphically in Figure 6.5, indicate that there were significant improvements in positive and negative attributional style, work self-esteem, job satisfaction, intention to quit and psychological strain, but not intrinsic motivation, at the end of the first series of courses, that were not seen in the waiting-list controls at that time. Furthermore, the improvements persisted. By the three-months follow-up, there were still significant differences between the trained group and the waiting-list controls on the psychological variables.

¹² I am using the convention '/' to represent 'Vs', for example, pre-test / post-test is equivalent to pre-test Vs post-test.

¹³ Again, it is acknowledged that this method of testing for group differences is less satisfactory than analysis of covariance, but it does provide a way of taking into account the effect of pre-test scores on outcomes.

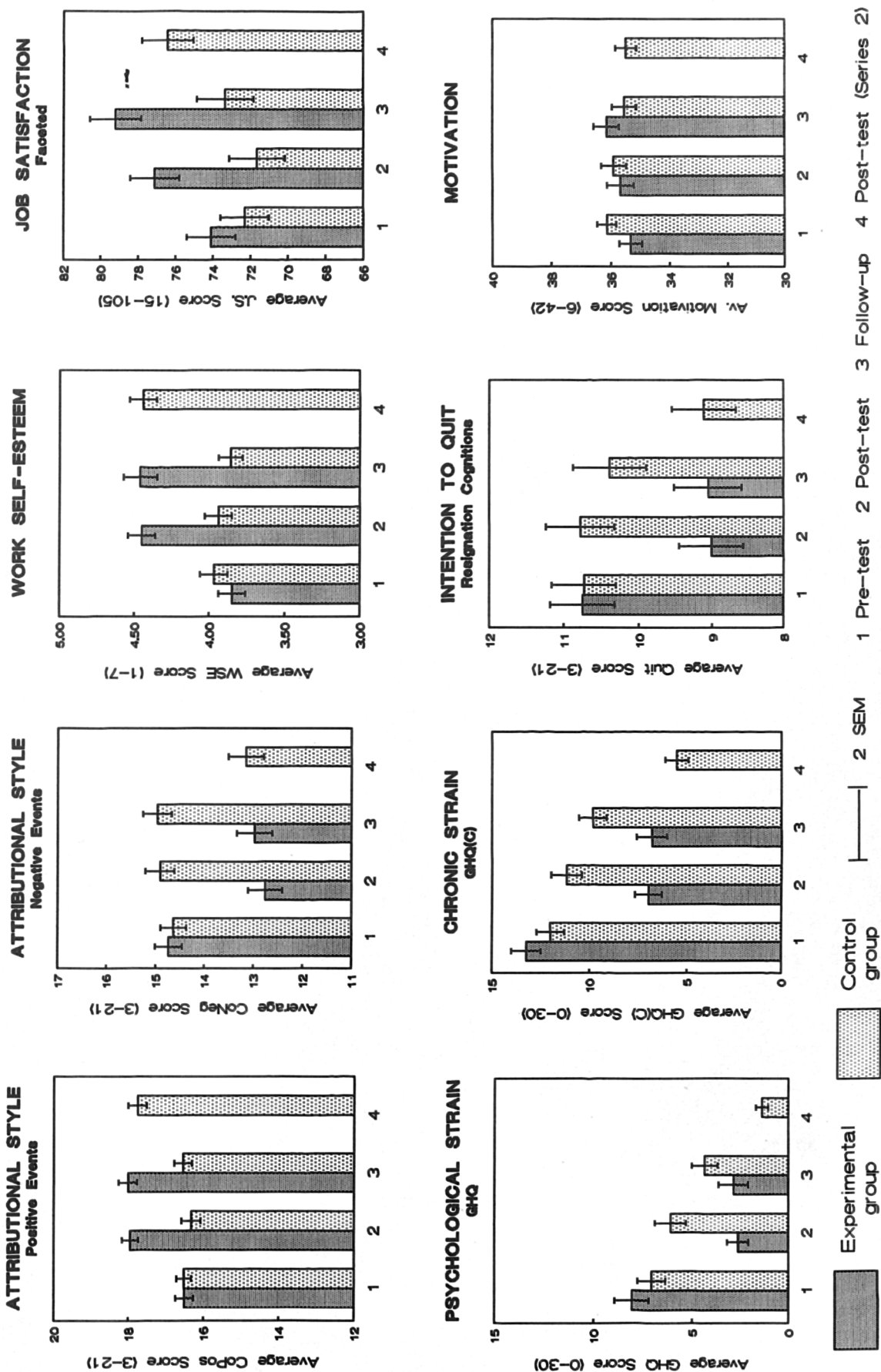
Table 6 1 Cognitive and Affective Outcomes

	MANAGING RESILIENCE GROUP mean (sd)			CONTROL GROUP mean (sd)			GROUP DIFFERENCES F (df1, df2)			DIVISION DIFFERENCES F (df1, df2)		
	Pre-course (1) [#]	Post-course (2) [#]	Follow-up (3) [#]	Pre-course (1) [#]	Post-course (2) [#]	Follow-up (3) [#]	Pre-course / Post-course	Pre-course / Follow-up	Post-course / Follow-up	Pre-course / Post-course	Pre-course / Follow-up	Post-course / Follow-up
Attributional Style (Positive)	16 51 (2 0)	17 95 (1 89)	18 01 (2 02)	16 52 (1 8)	16 33 (2 29)	16 54 (2 04)	24 01(1,135) ***	19 18(1,111) ***	1 42 (3,133)	0 55 (3,122)		
Attributional Style (Negative) Work	14 73 (2 44)	12 76 (3 07)	12 98 (3 01)	14 63 (2 37)	14 91 (2 53)	14 96 92 39)	22 07(1,127) ***	16 73(1,100) ***	1 66 (3,125)	0 40 (3,121)		
Self-Esteem	3 85 (0 88)	4 45 (0 85)	4 46 (0 94)	3 97 (0 85)	3 94 (0 84)	3 86 (0 75)	34 54(1,147) ***	36 46(1,133) ***	1 59 (3,145) *	2 30 (3,131)		
Faceted Job Satisfaction	74 1 (11 57)	77 12(11 36)	79 21(11 65)	72 32(12 33)	71 67(13 19)	73 36(13 42)	8 30 (1,145) **	7 13 (1,136) **	3 08 (3,143)	0 38 (3,134)		
General Job Satisfaction	4 99 (1 3)	5 57 (1 06)	5 51 (1 08)	4 8 (1 41)	4 87 (1 32)	5 01 (1 23)	11 22(1,135) ***	3 92 (1,129) *	0 69 (3,151)	0 35 (3,140)		
Intrinsic Motivation	33 34 (3 45)	35 68 (3 97)	36 15 (3 79)	36 13 (3 08)	35 91 (3 73)	35 56 (3 57)	0 70 (1,157) ***	2 72 (1,141) *	1 35 (3,155)	0 20 (3,139)		
Intention to Quit Psychological Strain	10 75 (3 89)	9 01 (3 95)	9 05 (4 05)	10 73 (4 1)	10 79 (4 19)	10 39 (4 33)	13 97(1,155) ***	4 18 (1,141) *	0 91 (3,152)	1 83 (3,139)		
Psychological Strain (Chronic)	8 1 (7 67)	2 64 (5 13)	2 88 (6 57)	7 09 (6 79)	6 12 (7 2)	4 37 (5 86)	18 32(1,155) ***	4 74 (1,142) ***	1 23 (3,152)	0 12 (3,140)		
Success Expectancies	13 23 (7 01)	7 00 (6 23)	6 83 (6 9)	12 00 (6 67)	11 17 (6 97)	9 83 (6 24)	30 47(1,156) ***	15 04(1,142) ***	1 97 (3,154)	0 28 (3,140)		
	7 12 (1 56)		8 23 (1 22)	7 11 (1 85)		7 46 (1 33)		13 14(1,138) ***		0 63 (3,136)		

* p < 05, ** p < 01, *** p < 001

See Research Design, Figure 6 3

Figure 6.5: Cognitive and Affective Outcomes



The same improvements occurred in the waiting-list control group after their training. Comparison of the pre- and post-training scores of the control group by paired t-tests indicated that the psychological improvements resulting from the MR programme had been replicated (Table 6.2 and Figure 6.5).

Table 6.2 Control Group Cognitive and Affective Outcomes

	PRE-COURSE (3) [*] mean (sd)	POST-COURSE (4) [*] mean (sd)	DIFFERENCE t (df) [†]
Attribution Style (Positive)	16.49 (1.91)	17.85 (1.99)	6.06 (63) ***
Attribution Style (Negative)	14.91 (2.28)	13.05 (3.01)	-4.59 (63) ***
Work Self-Esteem	3.85 (0.76)	4.47 (0.76)	6.34 (66) ***
Faceted Job Satisfaction	73.04 (13.35)	76.94 (11.56)	3.93 (66) ***
General Job Satisfaction	4.97 (1.24)	5.43 (1.00)	4.35 (69) ***
Intrinsic Motivation	33.34 (3.28)	35.57 (2.93)	0.58 (67)
Intention to Quit	10.46 (4.42)	8.96 (3.63)	-4.55 (69) ***
Psychological Strain	4.38 (5.98)	1.18 (2.14)	-4.46 (69) ***
Chronic Psychological Strain	9.88 (6.20)	5.27 (4.63)	-7.12 (69) ***
Success Expectancies	7.45 (1.36)	8.22 (1.29)	4.06 (68) ***

* p < .05, ** p < .01, *** p < .001 # See Research Design, Figure 6.3 † Paired t-tests

Notably, on the General Health Questionnaire, there was a significant decline in the percentage of subjects' scores meeting the criterion for 'psychiatric caseness' (scores > 5, indicating the likelihood of psychiatric distress requiring treatment) after training in both groups. In the experimental group, 'psychiatric caseness' reduced from 52% of the sample to 15%, and, in the waiting-list control group after training from 23% to 1% (chi-square = 27.27, df=1, p < .001, exact binomial test p < .001 respectively).

Inspection of the regression plots of variables in which there occurred a significant interaction between the group effect and pre-test score revealed interesting additional information. As far as CoPos was concerned, the slopes of the experimental and control groups on the pre-test/post-test1 plot intersected at a point corresponding to a pre-test score of 20.18¹⁴ (95% confidence interval 19.24-21.13), the maximum possible score for

¹⁴ I would like to thank Professor Brian Everitt for writing a little computer program to calculate the precise intersection points from regression statistics accompanying the plots I performed.

the scale is 21, indicating that all but the five top-scoring experimental subjects benefited from the MR intervention. As their pre-test scores were at ceiling anyway, it is understandable that they did not improve any more than their control group counterparts. The intersection point for the CoPos pre-test/post-test₂ plot was only marginally lower, 19.85 (95% confidence interval 19.01-20.69), the same five subjects were affected (0.06% of the experimental group), indicating that the greater effects of the MR programme compared with waiting-list control treatment evident at post-test 1 had persisted until post-test 2. Thus, it can be safely concluded that the MR programme had a widespread beneficial impact on the positive attributional style of delegates, which persisted to the three-month follow-up point.

A similar pattern was found for CoNeg pre-test/post-test₂, where an interaction was found in the data (the intersection point of the slopes was 10.21, with a confidence interval of 8.89 to 11.53). This indicated that the MR programme was still more beneficial at the three month follow-up point than the waiting-list control treatment for all but the three lowest scorers pre-intervention (0.04% of the experimental group). For psychological strain and chronic strain, the intersection point in the data was outside the possible range of scores (in both cases, it was less than zero), thereby indicating that the improvements in the experimental group relative to the control group at post-test 1 were across the full range of pre-test scores in both variables.

Analysis of covariance indicated that there were significant differences between the MR trained group and the waiting-list controls in faceted job satisfaction by the conclusion of the training (post-test 1). Inspection of the plotted data for the pre-test/post-test₂ differences, where an interaction was found, showed that the intersection point of the plots was at ceiling (91.1, 95% confidence interval 90-92.5, maximum score=105), thereby indicating that the comparatively greater impact of the programme on subjects' faceted job satisfaction persisted to the three-month follow-up point for all sales representatives. A finer analysis of the data, in which the job facets were dichotomised into extrinsic and intrinsic features (as per Warr, Cook & Wall, 1979), indicated that greater improvements occurred in subjects' satisfaction about extrinsic features of their job (the physical work conditions, fellow workers, immediate boss, rate of pay, job security, industrial relations and the way the company is managed) than in their

satisfaction about the intrinsic features (freedom to choose own method of working, recognition, responsibility, opportunities to use abilities, promotion chances) Facets of the job about which the Sales Representatives expressed most satisfaction were the freedom to choose their own method of working, and their fellow workers The two aspects with which initially they expressed least satisfaction were their job security and the way the company was managed The largest changes in subjects' job satisfaction (pre-course / post-course) took place in these two areas As far as subjects' general job satisfaction was concerned, an interaction between group and covariate occurred in the data for pre-test/post test-1 (intersection point 6.4, confidence interval 5.75-7, maximum score=7), which indicated that all subjects except the 10 top scorers pre-intervention had gained more than the waiting-list control group in terms of general job satisfaction by the completion of the programme The same effect was evident for the pre-test/post-test2 comparison at the three month follow-up (intersection point =6.1, 95% confidence interval 5.3-6.9)

In summary, inspection of the plots for data in which a significant interaction was found between group and covariate indicated that, for all subjects except the very top scorers pre-intervention (who in most cases were responding at ceiling), the MR programme had a substantially greater impact at post-test 1 and at post-test 2 than the control treatment These conclusions confirm the results obtained from the statistical analyses of the group differences

In addition to the group by covariate interactions discussed above, the analyses of covariance indicated that a group by division interaction occurred in three psychological variables work self-esteem (pre-test/post-test1 and pre-test/post-test2), faceted job satisfaction (pre-test/post-test2) and intention to quit (pre-test/post-test2), indicating that the group effect was not constant across the four divisions in these variables However, inspection of the data did not reveal a uniform pattern in the variations, for example, there was no evidence of one division performing better than the others A main effect of division did not occur in any of the variables at either post-test 1 or post-test 2, except in faceted job satisfaction at post-test1 Because the same effect did not occur in any of the other variables, particularly general job satisfaction with which it was correlated, this divisional effect is likely to have occurred by chance

Having determined that significant group differences resulted from the MR programme that were not seen in the waiting-list controls at that time, a preliminary test of the Attributional Intervention Model (Figure 6 2) was next undertaken. Discriminant function analysis was used to ascertain which of the psychological variables at post-test 1 best differentiated between the experimental and control groups, and to explore the relationship between the outcome variables. The first order correlations between the variables at Post-test 1 are presented in Table 6 3 below.

Table 6 3 Pearson Product-Moment Correlations Between Variables at Post-test 1

	CoPos	CoNeg	Self-Esteem	Intent to Quit	Motivation	Job Satisfaction	Psychological Strain
CoPos	1 00	16	22	- 24*	14	35**	- 16
CoNeg	16	1 00	- 14	06	13	05	16
Self- Esteem	22*	- 15	1 00	- 59**	27**	59**	- 55**
Intention to Quit	- 24*	06	- 59**	1 00	- 20*	- 63**	39**
Motivation	14	13	27**	- 20*	1 00	27**	- 09
Job Satisfaction	35**	05	59**	- 63**	27**	1 00	- 46**
Psychological Strain	- 16	16	- 55**	39**	- 09	- 46**	1 00

* $p < .01$, ** $p < .001$, $n = 133$

Discriminant function analysis finds the best linear combination of variables for distinguishing between groups. Variables were selected by the stepwise method, with minimisation of Wilk's lambda as the criterion for variable selection (at each step, the variable that resulted in the smallest Wilk's lambda for the discriminant function was selected for entry). The assumptions underlying the analysis (multivariate normality and equality of group covariance matrices) were checked and met. The results indicated that at post-test 1, CoPos and CoNeg discriminated best between the groups. Because of multicollinearity, these two variables were sufficient to gain an 85% correct classification of subjects into groups. Once CoPos and CoNeg were taken into account (they explained 33.5% of the variance), only an additional 2% of the variance was explained by adding work self-esteem and intrinsic motivation. These results provide preliminary support for the Attributional Intervention Model (Figure 6 2) in terms of its prediction that the cognitive and affective outcomes are mediated by changes in attributional style.

Table 6.4 Discriminant Function Analysis

STEP	ENTERED	REMOVED	WILK'S LAMBDA	SIG. LEVEL
1	CoPos		84131	< 0001
2	CoNeg		66513	< 0001
3	Work Self-Esteem		64692	< 0001
4	Intrinsic Motivation		64116	< 0001

3) Behavioural Outcomes

• Employee Turnover

Employee turnover data were consistent with the indices of psychological improvement. There were three times as many resignations in the control group (10/85, 12%) as in the experimental group (3/81, 4%) during the 19 weeks from the commencement of the first series of courses, to the three-month follow-up point and the commencement of the courses for the waiting-list control group (chi-square = 3.73, df=1, p=0.53). This calculation is conservative, as it does not include the 3 control group subjects who withdrew from the programme pending their resignation a few weeks after the commencement of the second series of courses¹⁵, nor does it include retirements which, conceivably, could be taken early for the same reasons as the decision to resign is made (i.e. poor sales performance, low commission earnings, excessive psychological strain).

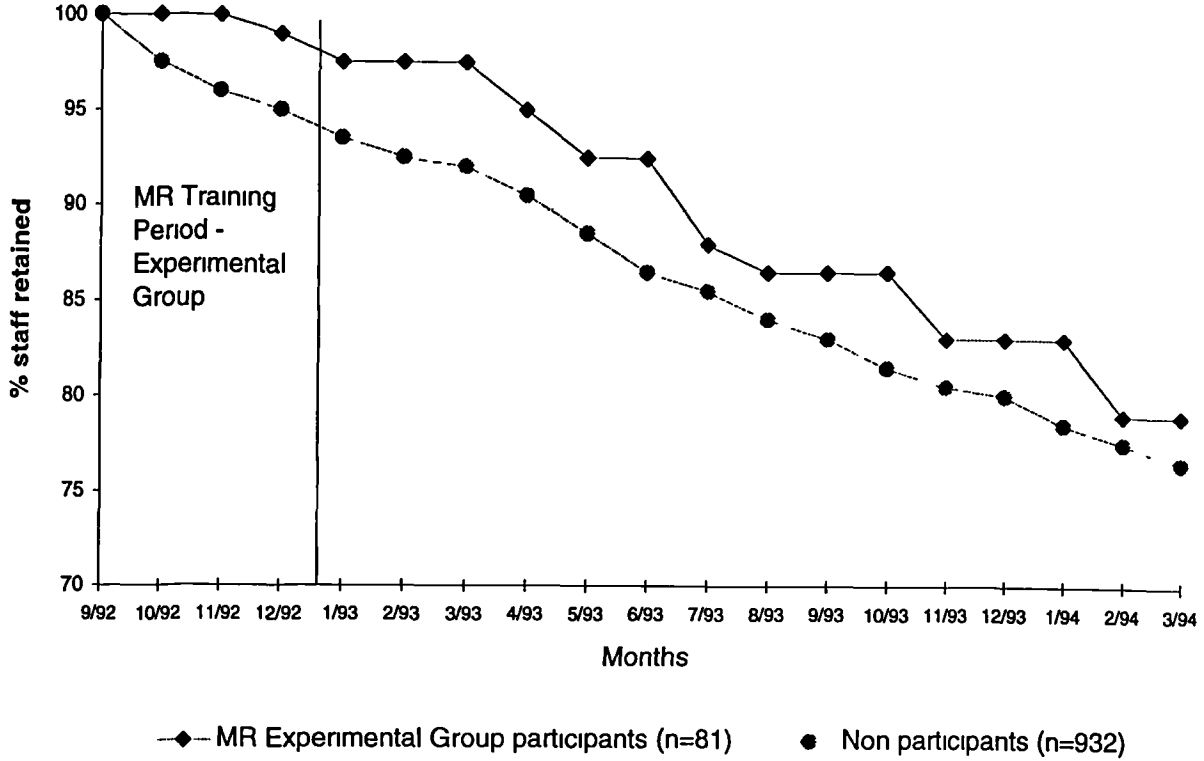
A similar reduction in employee turnover took place when the control group underwent their training, by the end of the seven-week programme, turnover was 1.3%. The equivalent figure in the experimental group by the end of their training was 2.5%. As the rates at the end of each group's training did not differ after training (chi-square < 1), the data from the two groups were combined and compared with the non-participating controls ($n = 932$), revealing a significant reduction in turnover during the 8 months of

¹⁵ Three other control group subjects withdrew from the programme for unspecified reasons (though they remained with the company), reducing the size of the control group from 91 to 85.

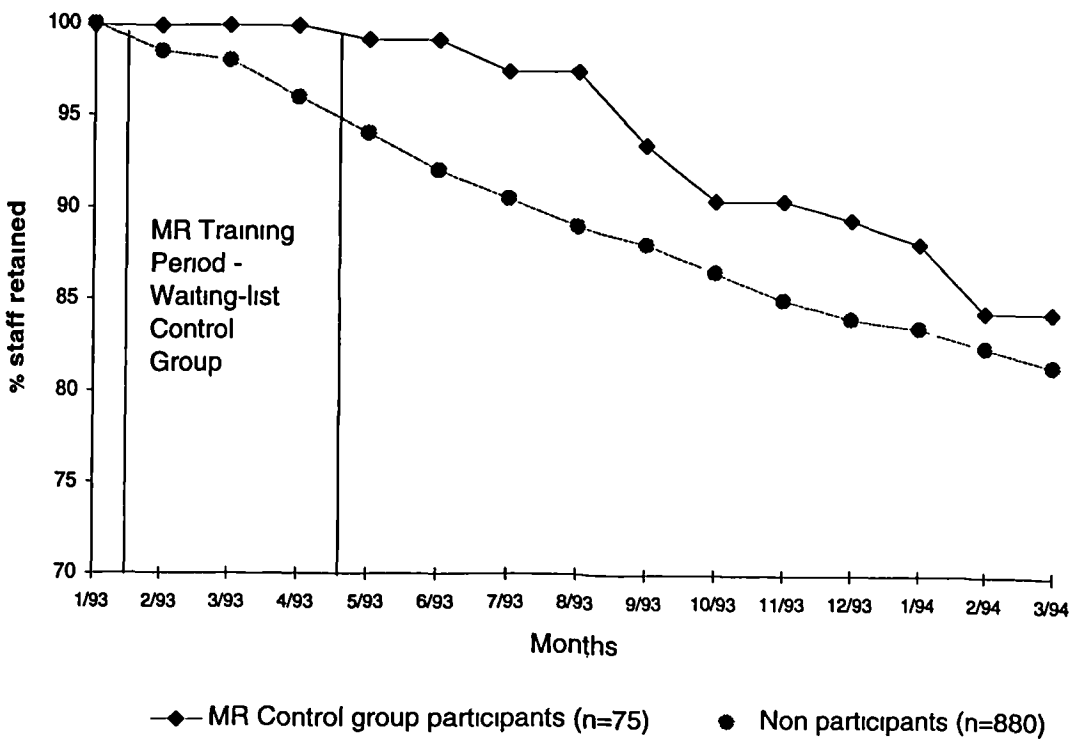
Figure 6 6

STAFF RETENTION ANALYSIS

1. COMPARISON OF EXPERIMENTAL GROUP WITH NON-PARTICIPATING CONTROLS



2. COMPARISON OF WAITING-LIST CONTROL GROUP WITH NON-PARTICIPATING CONTROLS



training non-participating controls 103/932 (11%), trained employees 7/156 (4%), chi-square = 6.34, $df=1$, $p<0.02$ ¹⁶ (This result is conservative, as employees in the trained group were low performers pre-course and therefore had a higher than average likelihood of quitting, whereas the comparison here is with the company average) There was no further change for the 10 months of follow-up, the rates of decline reverting to parallel, i.e. the turnover rate for the trained group matched the company average (Figure 6.6), as verified by survival analysis (SPSS/PC+, Wilcoxon statistic = 11 and 14 respectively, $p=.74$ and $.71$). Reports from the company two years after the completion of training indicate that the original gains in staff retention are being maintained

• Sales Activity

Means and standard deviations for Sales Representatives' average weekly activity for 6 weeks prior to the MR course (baseline), during the 7 weeks of the course, and for 3 months after the course are presented in Table 6.5 for the two variables for which a reasonable amount of data could be gained: number of approaches and number of sales presentations made¹⁷

Table 6.5 Sales Activity Means and Standard Deviations

	MANAGING RESILIENCE GROUP			CONTROL GROUP		
	mean (sd)			mean (sd)		
	Pre-course	During course	Post-course	Pre-course	During course	Post-course
Approaches	18.64 (11.43)	19.55 (12.07)	18.27 (12.75)	22.99 (17.68)	21.58 (15.75)	20.73 (14.53)
Presentations	9.91 (5.42)	10.48 (4.99)	9.75 (6.44)	9.61 (6.62)	9.08 (5.18)	9.31 (4.83)

Analysis of covariance was used to assess whether group differences occurred as a result of the MR programme. A two by four factorial design was employed, with average weekly activity pre-course as the covariate, and activity during the course and post-course as the dependent variables. The assumptions underlying analysis of covariance were checked and met for each of the analyses. The results (Table 6.6) indicated that

¹⁶ The turnover of the non-participating controls (11%) is lower than that of the company as a whole (21%) reflecting the fact that this group, consistent with the subjects in the training groups, did not include sales representatives of less than 6 months tenure

¹⁷ Where data was missing for some of the weeks, the average was computed from the remaining weeks

there were no significant group differences during the MR course, or during the post-course period in either the number of approaches made, or in the number of sales presentations made. Neither were any group by division interactions found in any of the analyses. A significant main effect of division occurred in the number of sales presentations made during the MR course: two divisions, East London/Essex and South-east England performed well, the other two, Northampton and Greater London, performed poorly.

Table 6 6 Sales Activity Outcomes

	GROUP DIFFERENCES		DIVISION DIFFERENCES	
	F (df 1, df 2)		F (df 1, df 2)	
	Pre-course / During course	Pre-course / Post-course	Pre-course / During Course	Pre-course / Post-course
Approaches	1.01 (1,92)	0.49 (1,87)	0.43 (3,90)	0.19 (3,85)
Presentations	* 2.92 (1,93)	0.17 (1,92)	* 3.16 (3,91) *	2.08 (3,90)

* p < 0.05, ** p < 0.01, *** p < 0.001

4) Performance Outcomes

• Sales Productivity

Average number of sales and average weekly value of premium sold were computed for three periods during the study: for the 3 months prior to commencement of the MR courses (baseline), during the 7 weeks of the course, and for 3 months after the courses. The means and standard deviations for each time period are presented in Table 6 7.

Table 6 7 Sales Productivity Means and Standard Deviations

	MANAGING RESILIENCE GROUP			CONTROL GROUP		
	mean (sd)			mean (sd)		
	Pre-Course	During Course	Post- Course	Pre-Course	During Course	Post- Course
Number of Sales	2.55 (0.97)	* 2.47 (0.96)	2.26 (0.87)	2.55 (0.93)	2.22 (0.92)	2.36 (0.9)
Value of Premium Sold	760.62 (321.66)	768.13 (357.49)	752.59 (405.61)	752.02 (281.09)	743.20 (379.65)	783.43 (427.74)

Analysis of covariance was used to assess whether any differences occurred in sales productivity as a result of the MR intervention, the assumptions underlying the analysis having been checked and met. Again, a two by four factorial design was employed, with pre-course sales as the covariates, and sales during and after the course as the dependent variables. The results (Table 6.8) indicated that there were no significant group differences. However, it is possible that there was an underestimation of effect here, because data were not available for 12 of the 13 subjects in the control group who resigned prior to (or just after) their course started. It is probable that their sales would have declined substantially over a number of weeks prior to their departure (this is the standard pattern), which would have reduced the control group average for the measurement periods.

No significant group by division interactions were found in the data, but a significant main effect of division occurred in both the number and value of sales made during the post-course phase (but not during the course). In each case, X Division (Northampton) demonstrated higher sales figures than the other divisions.

Table 6.8 Sales Productivity Outcomes

	GROUP DIFFERENCES		DIVISION DIFFERENCES	
	F (df 1, df 2)		F (df 1, df 2)	
	Pre-Course / During Course	Pre-Course / Post-Course	Pre-Course / During Course	Pre-Course / Post-Course
Number of Sales	3.08 (1,155)	0.00 (1,156)	0.86 (3,153)	5.87 (3,154) ***
Value of Sales	* 0.16 (1,155)	0.05 (1,156)	* 0.17 (3,153)	4.97 (3,153) **

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A somewhat different result was found when the control group underwent their training. A comparison by paired t-tests of control subjects' sales productivity during the MR course with that prior to the course (during the 3 month post-test phase of the first series of courses, which acted as a baseline to the control group courses) indicated that a significant improvement occurred in both the number and value of sales made (Table 6.9). (Due to organisational constraints, sales data were not obtained for the control group's post-course phase¹⁸.)

¹⁸ This would have entailed trying to extract a further 12 weeks of data from divisions, districts or sales representatives, in addition to the 31 weeks of sales figures.

Table 6 9 Control Group Sales Productivity Outcomes

	BASELINE	DURING COURSE	DIFFERENCE
	mean (sd)	mean (sd)	t (df)
Number of Sales	2 36 (0 90)	2 73 (0 91)	2 54 (72) *
Value of Sales	783 43 (427 74)	986 10 (463 49)	* 2 81 (72) **

* p< 05, ** p< 01, *** p< 001

Furthermore, the sales performance of the control group during their training outstripped that of the experimental subjects at the same time. Because data were available for both the experimental and control groups during the second series of courses (7 weeks), it was possible to perform an analysis of covariance with the post-course period of the series 1 courses acting as baseline (and covariate), and the sales during the control group course as the dependent variable. The results (Table 6 10) indicated that there were no significant group differences in the number of policies sold during this period, but the value of policies sold by the control group was significantly higher than those sold by the experimental group. There were no group by division interactions, but a significant main effect of group was found in the value of policies sold (higher valued policies were sold by A and Y Divisions).

Table 6 10 Sales Productivity During Control Group Training A Comparison

	GROUP DIFFERENCES	DIVISION DIFFERENCES
	F (df 1, df 2)	F (df , df 2)
Number of Sales	0 00 (1,149)	1 39 (3,147)
Value of Sales	4 25 (1,149) *	4 04 (3,147) **

* p< 05, ** p< 01, *** p< 001

By virtue of the waiting-list control group design employed in this research study, the group comparisons reported above focused on short-term (up to 12 weeks after course completion) productivity outcomes. The Pearl's Personnel Support Section at head office looked at longer term outcomes from the MR course¹⁹. For the first 12 months after the completion of the courses, they plotted the monthly life assurance sales of the course participants with the equivalent sales figures for non-participating Sales

¹⁹ They used data plots rather than statistical analyses, therefore the conclusions are expressed rather more generally than statistical analyses would have allowed.

Representatives from the same four divisions ($n = 911$), and reported that up to week 24, the sales of course participants (who, pre-course, had been experiencing difficulties with their work) were consistently below those of non-participants. However, thereafter, their productivity compared favourably with that of non-participants, and, in some months, exceeded it. Comparisons of the average value of premium sold during the same period, indicated that prior to week 24, non-participants sold higher valued policies, but from that point until the end of the year, the course participants sold higher valued policies than their non-participating colleagues. A similar pattern occurred with the number of policies sold. By week 36, course participants were selling an equivalent number of policies to non-participants, and by week 48 they were selling more. In general, series 2 participants (the waiting-list control group) performed better than series 1 participants during this 12 month period.

The company then looked at data pertaining to unassisted sales²⁰. For the next six months (12-18 months after the completion of the courses), the percentage of unassisted sales made by course participants was compared with the respective Divisional averages. It was found that more course participants sold above their Divisional average in terms of percentage of unassisted business, than below. Thus, in the 18 months after the MR courses, not only were the sales of course participants equivalent to and, on occasions, in excess of divisional averages, they were, for the greater part, unassisted. Reports from the company two years after the completion of training indicate that 50% of the sample are performing at more than 5% above the average for their division, and a further 15% are performing at the divisional average (within a range of +5% to -5%). Considering that the MR participants were, on the whole, lower performers pre-course, these figures are grounds for muted optimism.

5) Prognostic Indicators: Managing Resilience Course

First, the role of learned resourcefulness in predicting the impact of the MR programme was investigated. Separate regression analyses were conducted, using pre-intervention learned resourcefulness (measured by the Self Control Schedule, SCS), to predict post-

²⁰ A highly sought-after goal in the Pearl is to increase the proportion of unassisted to assisted business, thereby improving the cost-benefit ratio of sales.

test attributional style (CoPos and CoNeg), psychological strain (GHQ), resignations and sales productivity. These five outcome variables were chosen to represent each stage of the intervention model (Figure 6.2). For each regression equation built, the pre-treatment scores of the outcome variable were forced into the equation first, to control for their effect on outcome. The results indicated that subjects' pre-intervention SCS scores did not predict response to the Managing Resilience programme as measured by any of the outcome variables: CoPos ($B = -0.004$, $se[B] = 0.008$, $p = .62$), CoNeg ($B = -0.07$, $se[B] = 0.01$, $p = .95$), GHQ ($B = 0.02$, $se[B] = 0.02$, $p = .45$), number of sales ($B = -0.005$, $se[B] = 0.003$, $p = .12$), value of sales ($B = 0.96$, $se[B] = 1.74$, $p = .58$) or resignations ($B = -0.02$, $se[B] = 0.02$, $p = .41$).

In the light of these results, an investigation was undertaken to ascertain whether any of the pre-intervention psychological variables predicted the outcomes of the MR programme. Independent variables included positive and negative attributional style, psychological strain, motivation and job satisfaction (work self-esteem, intention to quit and success expectancies were not included because of their high intercorrelation with other variables), the dependent variables, as previously, were post-test attributional style, psychological strain, resignations, and sales productivity. A maximum R^2 forward selection technique was used in the regression analyses, with the pre-test score of the outcome variable forced into the equation first. None of the variables predicted response to the MR programme in terms of psychological strain or negative attributional style, although intrinsic motivation predicted turnover during the 18 month period of the study ($B = -0.24$, $se(B) = 0.1$, $p = .02$), but not during the 4.5 month group comparison phase. Subjects' pre-intervention motivation also predicted the value of sales made after the course ($B = 31.75$, $se(B) = 14.29$, $p = .03$). There were no predictors for the number of sales made.

Lastly, the role of demographic variables as prognostic indicators was investigated. Age, sex, tenure, and whether subjects had experienced a work-related 'black patch' prior to the MR course were assessed, in terms of their ability to predict post-test attributional style, psychological strain, resignations and sales productivity. None of the demographic variables predicted CoPos, CoNeg, resignations, number or value of sales, however, post-test GHQ was predicted by gender ($B = 8.79$, $se(B) = 2.42$, $p = .0005$) and whether

subjects had experienced difficulties with their work prior to the course ($B = -3.38$, $se(B) = 1.02$, $p = .001$) Men rather than women, and subjects who pre-course had experienced difficulties with their work showed the largest improvement in GHQ This latter result indicates that, in terms of improving psychological well-being, the MR course was maximally beneficial for sales representatives who, pre-course, were not performing well in their job

6) **Managing Resilience Programme: Potential for Prophylaxis**

The analyses, to this point, have indicated that subjects who participated in the MR programme reported significant improvements in a number of psychological variables including psychological strain and chronic strain, that both groups after training experienced a significant reduction in 'psychiatric caseness', and furthermore, that the greatest improvements in psychological strain were felt by those Sales Representatives who, pre-course, had difficulties with their work The question remains as to whether the MR programme was also beneficial for those who were relatively asymptomatic before the commencement of the courses

To test this question, subjects in both the MR and control groups who, pre-intervention, scored below the GHQ 'caseness' cut-off point ($GHQ \leq 5$) were extracted (this subgroup, $n = 87$, comprised more than half the total sample), and analysis of covariance was used to test for differences between the two groups The results (Tables 6.11a and 6.11b) indicated that, by the completion of courses, there were significant improvements in the MR group on all the psychological variables, except motivation as previously, which did not occur in the waiting-list control group Moreover, the improvements, on the whole, persisted By 3 month follow-up, there were still significant differences between the trained group and the waiting-list controls on all the psychological variables except psychological strain and intention to quit (the trained group, in general, maintained their low scores on these two variables, but the scores of the waiting-list control group decreased, an example, I would suggest, of an expectancy effect)

Thus, it may be concluded that the MR programme was beneficial for all subjects, not just those reporting high pre-intervention levels of psychological strain Inspection of

the data plots, reported earlier, confirms this conclusion. Further, subjects who subsequent to training, encountered work-related difficulties reported dealing with them effectively, and, as the follow-up data indicate, without any negative impact on their confidence and psychological health.

Table 11a Cognitive and Affective Outcomes Low Psychological Strain Subjects

	MANAGING RESILIENCE GROUP			CONTROL GROUP		
	mean (sd)			mean (sd)		
	Pre-Course (1) [#]	PostCourse (2) [#]	Follow-up (3) [#]	Pre-Course (1) [#]	PostCourse (2) [#]	Follow-Up (3) [#]
Attributional Style - Positive	17.94 (1.87)	19.94 (1.87)	18.16 (2.06)	16.62 (2.07)	16.34 (2.33)	16.32 (2.04)
Attributional Style - Negative	14.53 (2.25)	12.46 (2.98)	12.52 (3.04)	14.53 (2.80)	14.76 (2.84)	14.49 (2.66)
Work Self- Esteem	4.14 (0.89)	4.75 (0.71)	4.63 (0.78)	4.30 (0.82)	4.27 (0.77)	4.12 (0.77)
Job Satisfaction	77.48 (11.33)	80.57 (11.73)	81.25 (10.95)	74.62 (11.78)	74.44 (13.13)	74.53 (13.43)
Intrinsic Motivation	35.05 (3.22)	36.10 (3.10)	35.86 (3.14)	36.19 (3.37)	36.27 (4.01)	35.78 (3.36)
Intention to Quit	9.28 (3.63)	7.68 (3.51)	8.28 (4.21)	9.37 (4.05)	10.12 (4.42)	9.11 (4.26)
Psychological Strain	1.82 (1.96)	0.87 (1.63)	1.30 (3.15)	1.79 (1.57)	3.12 (4.66)	2.13 (3.80)

[#] See Research Design, Figure 6.3

Table 11b Group Differences Low Psychological Strain Subjects

	GROUP DIFFERENCES	
	F (df 1, df 2)	
	Pre-test / Post-test	Pre-test / Follow-up
Attributional Style - Positive	12.23 (1,65)***	17.01 (1,61)***
Attributional Style - Negative	12.21 (1,61)***	10.06 (1,59)**
Work Self-Esteem	20.85 (1,74)***	15.52 (1,67)***
Job Satisfaction	6.07 (1,73)*	5.38 (1,67)*
Intrinsic Motivation	0.90 (1,78)	1.18 (1,71)
Intention to Quit	12.46 (1,77)***	0.84 (1,71)
Psychological Strain	8.43 (1,77)**	0.87 (1,71)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.6 DISCUSSION

These results provide support for the hypotheses of this research project. They demonstrate that the Managing Resilience programme is indeed an effective attributional training programme.

- Improvements occurred in all the psychological measures, except intrinsic motivation, at the end of the first series of courses, that were not seen in the waiting-list controls at that time. Furthermore, the improvements persisted (by the end of the three-months follow-up, there were still significant differences between the trained group and the waiting-list controls on the psychological variables) which positively affected employee behaviour (quitting, although not sales activity) and sales performance (*Hypothesis 1*)
- The same improvements occurred in the waiting-list control group after their training, confirming that the effect was a real one (*Hypothesis 2*)
- Whilst the outcomes of the MR programme were not predicted by subjects' pre-intervention learned resourcefulness, some of the changes were predicted by intrinsic motivation, gender and the experience of work-related difficulties (*Hypothesis 3*)
- The benefits of the MR programme were not limited to Sales Representatives who had undergone a 'black patch' in their job, or who, before the course, were experiencing psychological strain. The programme was shown to be of potential benefit to all employees (*Hypothesis 4*)

Consistent with the intervention model underpinning this research (Figure 6.2), the main change brought about by the MR programme was in subjects' attributional style. Discriminant function analysis indicated that post-test CoPos and CoNeg discriminated best between the experimental and control groups, and that together these two variables accounted for an 85% correct classification of subjects into groups. On the basis of this finding, it may be concluded that the MR programme is indeed acting in the manner for which it was designed, that is, to bring about attributional change. Furthermore, the benefits were widespread. Although the programme did have a differential impact on subjects depending upon their pre-intervention attributional style (as predicted by the theory on which the programme was predicated), the differential impact was not marked.

All except the very top five scorers on positive attributional style benefited from the programme

The attributional change flowed through to other psychological benefits. On the General Health Questionnaire, there was a decline in “psychiatric caseness”, the incidence of acute or episodic psychological distress requiring treatment, from 52% to 15%. This latter figure is below the percentage of psychiatric caseness commonly found in employed groups. For example, a comprehensive research programme conducted by Warr and his colleagues found that, in employed samples, the incidence of psychiatric caseness was approximately 20% (Warr, 1984a). Cox (1987) reports that within a random sample of 2164 employed men, the mean score on the GHQ 30 was 3.17, with 24% scoring over 5, the cut-off for psychiatric caseness. Thus the employees in the present study were considerably more psychologically strained before the intervention than is the norm in employed samples, 52% were experiencing sufficient psychological distress to require treatment, and the mean score was 8.1. However, as a result of the MR programme, the mean score dropped to 2.64 and the incidence of psychiatric caseness within the sample was reduced to 15%, below the average for employed groups. There was a concomitant reduction in chronic psychological strain, and the effect was replicated when the control group underwent their training. Thus, it can be concluded that the MR programme brought about substantial improvements in participants’ mental health.

Subjects also showed consistently stronger work self-esteem after training. They viewed themselves as more successful, more capable and more confident, and their feelings of self-worth remained strong three months after the completion of the programme. The Work Self-Esteem Scale, developed for this project, performed appropriately. That the evaluation failed to show an impact on subjects’ motivation is disappointing, given the fundamental link between attribution and motivation theories. Two explanations are possible. The first is that, rather than being a situational response to the job, intrinsic motivation is a stable personality factor, similar to Hackman & Oldman’s (1980) concept of higher order need strength. Support for this explanation can be found in the literature, for example, Wall et al (1986) found that the introduction of autonomous work groups had no impact on employees’ intrinsic motivation, an unexpected result given the strong

motivational basis to job redesign. The second explanation relates to the suitability of the scale chosen to measure the variable in this study. The fact that significant improvements occurred in other cognitive and affective variables to which the variable is related, that the internal consistency of the scale was low and that the range of scores was restricted in each phase of the study, leads one to suspect that the scale employed to measure this variable, the Intrinsic Job Motivation Scale (Warr, Cook & Wall, 1979), was not optimal. In retrospect, a more behavioural measure of job motivation, such as the Job Motivation Indices (Patchen, Pelz & Allen, 1965) may have been more useful.

Nevertheless, statistically significant improvements in subjects' general job satisfaction and their satisfaction with different aspects of their job did occur after the MR training. This result fits nicely with both attribution theory and the model underpinning this research, as job satisfaction has been shown to be primarily a function of the degree of perceived control and autonomy at work (Guest, Pececi & Dewe, 1992). However, whilst the gains in general job satisfaction also had a practical significance (participants changed from being only fairly satisfied, to expressing satisfaction), the gains in faceted job satisfaction were not occupationally significant. Two explanations are possible. The first pertains to the notion of 'satisficing' (March & Simon, 1993), a feeling that the job meets minimum criteria, that it is 'alright'. Typically, there is a poor distribution of scores on measures of job satisfaction, the majority of employees report that their job 'satisfies' them, but it is postulated that this may reflect moderate job satisfaction, rather than a definite liking for the job. In this sample, 74% of the experimental group indicated that they were fairly satisfied (40%), satisfied (25%) or very satisfied (9%) with the facets of their job - before they had participated in the MR programme. It is conceivable that a majority of the 65% of subjects who reported feeling satisfied or fairly satisfied were in fact 'satisficing'. Alternatively, the results may indicate that subjects were satisfied with some facets of their job, but not with others. As indicated earlier, greater improvements occurred in subjects' satisfaction about extrinsic features of their job (the physical work conditions, fellow workers, immediate boss, rate of pay, job security, industrial relations and the way the company was managed) than in their satisfaction about the intrinsic features (freedom to choose own method of working, recognition, responsibility, opportunities to use abilities, promotion chances)²¹. The largest changes

²¹ This fits with the lack of change in intrinsic motivation

(pre-course / post-course) took place in subjects' satisfaction with their job security and the way the company was managed. The increase in subjects' satisfaction with their job security, I would argue, is consistent with the significant reductions that occurred after the MR programme in intention to quit. Withdrawal cognitions were reduced to a significant degree statistically and occupationally in both groups after training. Concomitantly, there were improvements in trainees' expectations of success. This pattern of results fits neatly with Weiner's attributional paradigm.

Employee turnover data were consistent with the indices of psychological improvement. A substantial 66% reduction in turnover took place during the first comparative phase of the study, three times as many control subjects as experimental subjects resigned during this 4.5 month period. When combined and analysed over an 18 month period in comparison with the large group of non-participating controls, the data from the two trained groups revealed a significant difference in turnover during the 8 months of training (trained employees 4% c.f. non-participating controls 11%), with the rate matching that of the non-participating controls thereafter. This pattern of results indicates that, on the one hand, the MR programme acted to prevent, not merely delay, resignations in employees who, pre-course, were low performers and therefore likely to have a higher than average resignation rate, but on the other, it did not protect against normal rates of resignation in the period following training. To my knowledge, this is first controlled study to empirically demonstrate the effectiveness of a psychological intervention in reducing employee quitting. In other studies, a reduction in turnover has occurred as an unexpected side benefit from a programme designed to improve productivity (Casey, 1990), non-experimental designs have typically been used and the reported effects have been small (see meta-analytic review by Guzzo, Jette & Katzell, 1985). In this research, the improvements in quitting were specifically predicted from the research model, and subsequently demonstrated via a controlled experimental evaluation.

Furthermore, those remaining with the company as a result of the MR training did not continue as poor performers who the company would have preferred to lose. Two years after the completion of training, 50% of the sample were performing above the average for their division, with an additional 15% of the sample performing within 5% of the

average. Considering that, pre-intervention, the MR participants were not performing well, these results indicate that the MR programme did have a positive impact on sales productivity. Yet, in the short term (up to 12 weeks after course completion), there were no discernible improvements in course participants' sales productivity. It was not until 6 months after training that the improvements in the experimental group first became apparent (these were in comparison with a large group of non-participating controls). This pattern of results would seem to indicate that the benefits accruing from the attributional change took some time to flow through to changes in actual sales performance. Yet, when the control group underwent their training, the gains in sales productivity occurred relatively sooner. In contrast with the experimental group, these subjects showed an immediate improvement, and they maintained their advantage over the series 1 participants throughout the 12 months of monitoring. This difference in outcome may have been a result of a practice effect on the part of the trainers, or an expectancy effect by the control subjects (having heard positive accounts of the MR programme from the series 1 participants), although it is unlikely that the latter effect would have persisted for 2 years after the completion of the courses. Taken together, however, the results indicate that the MR programme brought about a modest improvement in sales productivity, which has persisted for a substantial period of time²²

The same cannot be said for subjects' sales activity. No significant group differences were found either during or after the MR courses. Three explanations are possible:

- 1 The MR programme did not have an impact upon sales activity
- 2 The changes in sales activity accruing from the programme were longer-term (beyond the 3 month post-course measurement period)
- 3 The lack of effect was due to the poor quality of the sales activity data in this study

On the balance of evidence, the first explanation is questionable, given the previously-demonstrated association between attributional style and both sales activity and productivity (Seligman & Schulman, 1986, Corr & Gray, 1995c), and seeing that changes in attributional style and sales productivity occurred in this study. It is possible

²² These results need to be considered in the light of other findings from the insurance industry. Foresight (1990), for example, report that Metropolitan Life, the insurance company in which the Optimism ABC programme was piloted, did not expect to find productivity improvements as a result of the Optimism ABC programme (nor did improvements occur). *"In their experience, benefits from training programmes rarely turn into 'hard numbers' because of the many confounding factors over time"* (Foresight, 1990, p 1)

that, similar to the changes that occurred in sales productivity, the changes in the Sales Representatives' work activity did not take place immediately after the training, but occurred in the longer term. Whereas the other behavioural outcome in the study, employee turnover, required a lack of behaviour (resignation behaviour) by the Sales Representatives, and therefore its impact was evident immediately after the training, it is conceivable that a change in work practices may take more time. Unfortunately, the waiting-list control group design employed in this study constrained the length of time available to measure programme outcomes and the durability of effect, because the control group were to receive their training after follow-up of the first series of courses. As it was, the three-month follow-up period had to be assertively negotiated with the company, who wanted the control group to receive their training immediately after the completion of the first series of courses. Lastly, it is also conceivable that the poor quality of the data contributed to the lack of effect in this variable. Due to the negative reputation that the Hundred Points monitoring system had acquired in the Pearl, the Sales Representatives were reluctant to use it. (Of course, it is also possible that changes in sales activity occurred other than those measured, for example, it is conceivable that there may have been qualitative rather than quantitative improvements.)

Nevertheless, significant improvements occurred after MR training in subjects' attributional style, psychological well-being, job-related attitudes, work productivity and job retention, thereby providing support for the intervention model outlined in Figure 6.1 (outcomes pertaining to each segment of the model occurred, despite the lack of effect in sales activity), and indicating that an attributional change programme based on cognitive-behaviour therapy principles can be successfully applied to the occupational field. As predicted by the theory on which it is based, the MR programme did have a differential impact depending on subjects' pre-intervention attributional style. However, the differential impact was not marked - all but the very top scorers on positive attributional style benefited from the programme. Even where interactions existed between group and pre-test scores in variables other than positive attributional style, the intersection point lay outside the range of scores, indicating that the programme had a positive effect across the full range of pre-test scores on all psychological variables. Nor were the benefits limited to those Sales Representatives who had undergone a 'black patch' in their job, or who, before the course, were experiencing psychological strain. Even in

asymptomatic employees, cognitive and affective improvements accrued from the attributional change programme (interestingly, this is contrary to the predictions of the diathesis-stress component of RLH theory), indicating that the programme has a widespread application

In terms of prognostic indicators (*Hypothesis 3*), the results were mixed. Pre-intervention learned resourcefulness failed to predict the outcomes of the MR programme. These results are in accordance with those of Jarrett et al. (1991b), who found that pre-treatment SCS scores did not predict response to cognitive therapy in terms of patients' post-treatment depression scores. Yet they are in contrast with those in the previous study evaluating the Optimism ABC programme, and, in addition, with both Simons et al. (1985), whose results indicated that, from a range of potential predictors, SCS was the only useful prognostic indicator of patients' response to cognitive therapy, in terms of their post-treatment depressive symptoms, and Hoberman et al. (1988) who reported a significant predictive effect of SCS, but in the reverse direction: high initial SCS scorers showed less improvement on the 'Coping With Depression' course.

Three explanations are offered by Burns et al. (1994) for the inconsistency in results pertaining to learned resourcefulness. The first, that the initial severity of psychological symptoms moderates the relationship between the SCS and outcome of cognitive therapy, did not hold in the previous study (see Chapter 5): subjects were not severely depressed, yet the SCS predicted outcome in terms of positive attributional style and psychological strain. Secondly, Burns et al. suggest that the inconsistencies may be due to the type of statistical analysis employed. To explore this notion, I reanalysed the data in this study, using the procedure adopted by Simons et al., that is, a two (treatment) by two (learned resourcefulness) analysis of variance. The results indicated that there was a significant main effect of group on post-test CoPos, CoNeg, and GHQ, but not of learned resourcefulness, and that the interaction between group and SCS was not significant for any of the outcome variables. Thus, these results replicate those reported earlier, which were based on regression analyses, the method employed by Jarrett et al. Thirdly, Burns et al. suggest that the inconsistencies may be due to insufficient sample sizes to detect an effect. However, the sample in this study was large enough for

sufficient statistical power to detect an effect if one was present (Post-hoc analyses demonstrated an overall effect size of 0.63 across all the psychological variables in the study, and an effect size of 0.88 in negative attributional style, the variable on which the sample size was estimated)

I would suggest another explanation for the inconsistency in results. It concerns the nature of what the Self Control Schedule (Rosenbaum, 1980) predicts. The SCS is a measure of learned resourcefulness, a constellation of self-regulatory skills focusing on the use of cognitions and problem-solving procedures. Rather than predicting the *outcome* of therapy (in terms of post-intervention level of depression, strain etc), it is possible that the construct plays a role in predicting the *process* of the treatment. Specifically, I would suggest that pre-treatment levels of learned resourcefulness may predict the degree to which individuals accommodate to the assumptions underlying a cognitive-based intervention, and accept both the model and its problem-solving strategies. This factor was not measured in the present research, but provides an interesting research question for a future study²³

The search for alternative prognostic predictors for the MR programme revealed that pre-intervention intrinsic motivation predicted the value of sales made after the course, as well as employee turnover during the 18 month period of the study. This result is interesting considering there were no changes in subjects' intrinsic motivation as a result of the MR intervention. That the variable was found to be a predictor of outcome, I would suggest, adds weight to my earlier proposal that intrinsic motivation is a stable factor, and that this is what the scale employed in this research actually measured. Two further prognostic indicators were found: gender and 'black patch'. Men as well as those who had experienced a difficult period in their job showed the largest improvement in psychological strain. However, as indicated earlier, the benefits were not limited to those Sales Representatives who had undergone a black patch, nor to those who, pre-course, experienced psychological strain.

²³ In a discussion I had with Michael Rosenbaum at the World Congress of Behavioural and Cognitive Therapies in July 1995, about the status of learned resourcefulness in predicting outcome from cognitive therapy, he conceded that research findings have been mixed, but indicated that there is now evidence that learned resourcefulness predicts patients' *adherence* to cognitive therapy. This would support the hypothesis outlined above.

These results have implications for the future use of the programme, and its potential for prophylaxis. Selection criteria need not be restrictive, as the MR programme has been shown to be of potential benefit for all employees, regardless of pre-intervention symptomatology or job-related attitudes. Moreover, the results indicate that the programme can equip participants to cope more effectively with future adversities. Thus, it has both prophylactic and remedial utility.

6.7 CONCLUSIONS

These results demonstrate that an attributional change programme utilising cognitive therapy techniques can be successfully applied to the occupational field. With its basis in attributional theory and incorporating organisational goals in addition to individual employees' needs, the MR programme, in contrast with Optimism ABC, has been shown to improve psychological health, substantially reduce annual labour turnover and increase sales productivity among insurance salespeople. Furthermore, it is cost-effective. Compared with individual cognitive therapy which regularly involves 10-20 hours per client, the MR programme (2 trainers giving 21 hours to about 12 trainees) is some 50 times more efficient (although clinical problems are, of course, more difficult to treat). Trainees on the course also benefited from the tangible advantages of greater sales productivity (and therefore increased commission) and job retention. Turnover among insurance salespeople in the UK averages 42% per annum (LIMRA, 1993), reflecting the high level of rejection-induced psychological stress associated with the role, which the MR programme specifically targets. The cost of replacing sales staff (recruitment, training, business lost, etc.) averages £25,000 per person in the UK. According to Pearl Assurance calculations, the savings associated with the MR programme, projected to the company as a whole, would have been over £4,000,000. Thus, the application of attributional training to the workplace has possible benefits for both individuals and organisations alike.

ATTRIBUTIONAL TRAINING TO INCREASE JOB-FINDING AMONG LONG-TERM UNEMPLOYED

“Work is a person’s strongest tie to reality”
(Freud, 1930)

7.1 INTRODUCTION

The previous experimental study demonstrated that the attributional training programme, when compared to a waiting-list control group, brought about substantial psychological benefits, which translated into positive behavioural outcomes, and that the effects were replicated when the control group underwent their training. The next step in the evaluation of the Managing Resilience programme, therefore, was to ascertain that the results were due to the active psychological characteristics of the programme, rather than to non-specific factors associated with course attendance such as attention, expectancy and other “placebo” factors, including the Hawthorne Effect (Roethlisberger & Dickson, 1939), or to non-specific components of psychological treatment not unique to cognitive therapy, such as goal-setting, coping strategies, homework assignments, monitoring of progress and feedback (Teasdale, 1993)

A more stringent test of the programme therefore was implemented. The Managing Resilience programme was compared against a control programme matched for all variables (e.g. length, format, structure, inclusion of homework) other than its detailed content and specific strategies. The context in which the evaluation took place, consistent with the reformulated learned helplessness model, was one wherein repeated failure is faced: unemployment. The subjects were long-term (>12 months) unemployed people.

This chapter will outline the evaluation study. First, the unemployment context will be described, and the relevance of attributional frameworks for job-seeking will be

discussed. Next, the theoretical model on which the evaluation is based will be outlined. Hypotheses for the study will be developed, and the dependent variables will be reviewed, together with a rationale for each of them. Methodological considerations will follow, including the difficulties encountered in recruiting subjects, choice of measures for the dependent variables, and the statistical analyses performed. In keeping with the principles of sound training evaluation, the findings will be considered according to four levels of outcome: participant reaction (reaction), psychological outcomes (learning), job-seeking outcomes (behaviour), and job-finding (results). The chapter will conclude with a discussion of the findings.

7.2 THE CONTEXT: UNEMPLOYMENT

Loss of a job is a major life event. It affects millions of people. In January 1994, when this project was commenced, the official, unadjusted Department of Employment figure for the number of people unemployed in Britain was 2,889,300 (Fryer, 1995)¹. However, calculated according to another formula, this figure was as high as 4,001,500, representing 14.3% of the workforce².

Unemployment is associated with a number of negative features: reduced income, restricted variety in life, fewer goals, reduced decision latitude (choice in most cases is limited to small repetitive decisions about daily routine), reduction in skill use and development, increase in psychologically threatening activities, for example rejection in job-seeking, insecurity about the future, restricted interpersonal contact, changes in social position and in self-concept (Warr, 1983). A variety of adverse physical and psychological consequences have been reported: anxiety, depression, reduced life satisfaction, psychological strain, physical illness, low self-esteem, hopelessness about the future and social isolation (Caplan et al. 1989, Cobb & Kasl, 1977, Feather, 1990a). Furthermore, it has been established that these effects often prevent re-employment. Nevertheless, care needs to be exercised in assuming that unemployment is deleterious.

¹ The most recent Employment Department statistics, April 1995, calculate UK unemployment to total 2,375,290 (Employment Gazette, June, 1995).

² The Independent Unemployment Unit uses a formula employed by the UK government in 1982, which they maintain provides a more realistic picture of unemployment, as it ignores the subsequent changes made for administrative and/or political convenience (Fryer, 1995).

for everyone. Findings have not always been consistent, but there is some indication that a number of variables may moderate the effects of unemployment (Warr, 1983)

- a *Employment commitment or 'work ethic'* - is strongly positively associated with the degree of psychological distress experienced during unemployment
- b *Age* - middle-aged unemployed men experience greater distress than those who are younger or older
- c *Length of unemployment* - longer durations of unemployment are associated with poorer psychological well-being (although there appears to be a levelling off around four to six months)
- d *Financial strain* - both an outcome of unemployment (unemployed people receive on average 45% to 60% of their employed income, Warr et al., 1988) and a mediating variable influencing other outcomes
- e *Low level of activity* - again an outcome and a mediator
- f *Social class* - greater psychological distress has been found among unemployed people in the lower classes (due, it has been suggested, to their greater financial problems, and their greater difficulty in filling the time)
- g *Personal vulnerability*, both physical (health impairment) and psychological, to environmental pressures

To these moderating variables can be added the degree to which people are active copers (Fryer & Payne, 1986), their past experience with unemployment (Feather, 1990a), and their personality (Payne, 1988)

Thus, the effect of unemployment is quite varied. Furthermore, its psychological impact changes over time. For many years, it was accepted that the changes occur in stages, such as shock, followed by an optimistic and active job hunt, pessimism as efforts fail, and finally resignation and withdrawal (Eisenberg & Lazarfeld, 1938, Harrison 1976, Macky & Hames, 1982). Some writers now maintain that stage conceptualisations are gross generalisations, and may only relate to individuals who have not previously been unemployed (Burchell, 1992). Others assert that stage theories fail to take into account contextual factors such as the social structure, the labour market, and the economy, which impact upon individuals' subjective experience of unemployment (Hartley & Fryer 1984). There is some consensus that the initial decline in psychological health may cease, and possibly even reverse to a degree, as individuals adapt to their situation of

continuing unemployment. Different forms of adaptive behaviour have been noted (Warr, Jackson & Banks, 1988)

- *Constructive Adaptation* the individual develops interests and activities outside the labour market, which fulfil an alternative role to that of paid employment. This form of lifestyle is associated with raised levels of aspiration, autonomy and sense of competence. Whilst protecting against psychological distress, it also provides a good basis for effective job-search. However, such people comprise only a small minority of the long-term unemployed.
- *Resigned Adaptation* a more common outcome, in which reduced commitment to employment, as well as poorer quality and quantity of job-search are characteristic. Not only does the individual withdraw from job-seeking, he/she depends on limited routines of behaviour and protects him/herself from threatening events by avoiding new situations, as well as potentially stressful or expensive activities. Although this form of adaptation may be accompanied by a slight improvement in affective well-being, it is associated with reduced levels of other forms of mental health such as aspiration, autonomy and sense of competence.

It could be argued that the state of resigned adaptation, seen in many long-term unemployed people, has all the hallmarks of the syndrome of learned helplessness (cognitive, affective and motivational deficits)

It has now been established that unemployment causes, rather than merely relates to, poor psychological health. A number of explanatory models have been proposed. Warr's 'Vitamin' model of work and mental health (Warr, 1987, 1994) outlines nine critical features of jobs, which, he suggests, influence mental health in the same way as vitamins influence physical health: their absence impairs mental health, but their presence beyond a required level does not further increase health. Unemployment, characterised by the lack of most of these environmental features, is thus associated with impaired mental health. Fryer (in press) provides an explanation in terms of restriction of personal agency. Jahoda (1988) focuses on two factors: the sudden drop in standard of living, often into poverty, and the loss of the habitual way of life implied by a job.

"What all those who lost their jobs have in common is the abrupt exclusion from a social institution that previously dominated their daily lives, for better or worse. Employment, like every other institution, prescribes through its' organisation and rules certain unavoidable categories of experience. Whether one likes or hates

one's job, it structures time for the day, the week, the years, it broadens the social horizon beyond family and friends, it enforces participation in collective purposes, it defines one's social status, it demands reality-oriented activities" (Jahoda, 1988, p17)

Long-term unemployment typically brings further problems. In addition to the personal, financial and social restrictions which affect psychological health, it can result in psychological changes that may actually prevent re-employment (Warr et al., 1988). Many long-term unemployed people cease believing in their ability to regain employment (Eden & Aviram, 1993). Lowered self-esteem, self-efficacy and expectations of success reduce the individual's likelihood of a successful outcome to their job-seeking, or may reduce the motivation to seek work at all. Kaufman (1982) terms the latter a 'work inhibition' syndrome, and cites studies which have found evidence of it among long-term unemployed groups. In Britain, the long-term (>12 months) unemployed represent 37.3% of all unemployed people, in April 1995, 886,746 people had been out of work for more than one year, according to Department of Employment statistics³. The 12 month cut-off is adopted for psychological and practical reasons. Up to this point, it is argued, unemployed people are generally more motivated and self-directed in their job-seeking, whereas once the processes of resigned adaptation set in, job-seeking is minimised, and help may be necessary. Beyond 12 months unemployment, government training programmes therefore become mandatory. In addition, the unemployment benefit, a flat-rate payment, ceases, and is replaced by means-tested income support. Thus, long-term unemployed people are likely to experience financial strain, to have a history of failure, and because of the cognitive, affective and motivational changes associated with longer periods of unemployment, they are considered to be more difficult to help. It is on this group that the present project focuses.

Attempts to quantify the psycho-social and health implications of unemployment are not without difficulties (e.g. the aggregate time-series approach used by Brenner, 1976, to predict admissions to psychiatric hospitals). However, Beale & Nethercott (1985) offer some idea. They assessed the increased usage of medical services as a result of a factory closure, and found that, among job-losers and their dependants, GP consultations

³ However, according to the ESRC Research Centre on Micro-Social Change, the number of unemployed are underestimated in government statistics by at least one-third.

increased by 20%, and hospital outpatient visits increased by 60%. Similarly, Studnicka, et al (1991), studying another factory closure, reported health service usage to be twice as great among the unemployed, compared with those who had found re-employment. Thus unemployment represents a massive cost, not only to the individuals concerned, but to the NHS, and to the work-load of medical and health personnel. There are societal costs as well. In 1995, the British Employment Minister reported to the Commons Employment Select Committee that unemployment was costing the government £14 billion per annum⁴

The need for interventions to assist unemployed individuals to minimise the negative psychological impacts of unemployment, and to help them back into work, is clearly warranted. Yet, in Britain, in contrast with other European countries such as Switzerland, Belgium and Sweden, little psychological assistance is given to the unemployed. Government programmes focus on assisting clients to clarify their job goals, to gain job-seeking or job-related skills, or to re-socialise to the employment system. So, too, do the programmes offered by outplacement companies. A secondary benefit to psychological well-being is sometimes expected. However, as Fryer (1995) reports, involvement in employment/training schemes offers only temporary, if any, psychological benefit. Furthermore, the effects of long-term unemployment often considerably impair the effectiveness of such programmes. Clearly, with labour market conditions so restrictive, psychological interventions take on increasing significance in terms of helping unemployed people to effectively compete for the limited number of jobs available, or, if their attempts should fail, to move into other employment-related activities and immunise against the negative effects of continuing unemployment. I am not recommending that psychological programmes be provided in isolation, they are but one important facet (hitherto ignored) of an overall strategy to improve reemployment. Consideration must also be given at the macro level to job creation and to other policy issues to do with the labour market (for example, some countries have implemented a "social guarantee" of employment and training), and at the individual level to the person's job-related and job-seeking skills. No matter how psychologically robust an individual may be, if the jobs are not available, or if she/he does not possess the

⁴ This figure does not include tax revenue losses

necessary job competencies, reemployment will not occur. Nevertheless, psychological interventions also have an important role to play

“Psychological or socio-pedagogic training programmes may make an important contribution to the psychological stabilisation of unemployed people, and give them a chance to reduce their social isolation. Such programmes also provide a chance for the individual to discard the popular view of unemployment individualisation (blaming the individual for being unemployed), and naturalisation (treating the phenomenon of mass unemployment as a natural event, which cannot be influenced politically)” (Keiselbach & Svensson, 1988, p183)

However, whilst suggestions abound about ways to reduce the negative impact of unemployment, and to assist people to regain jobs (e.g. Latack & Dozier, 1986), empirically evaluated interventions have been few in number. Primarily, they have focused on job skills, and have demonstrated little utility (Goldstein, 1993). Three studies describing psychological interventions, however, are worthy of note. Caplan et al. (1989) showed that a social support and problem-solving intervention resulted in increases in both quantity and quality of reemployment, although interestingly, there was no difference in subjects' job-seeking behaviours. Eden & Aviram (1993) demonstrated that a programme to enhance self-efficacy in job-seeking led to higher rates of reemployment. Their regression analyses indicated that job-search behaviour was the major mediator through which high self-efficacy was converted into reemployment. A different form of psychological intervention was evaluated by Spera et al. (1994) - expressive writing by job-seekers about the thoughts and feelings surrounding their job loss. It was found to positively affect reemployment success, but not to affect subjects' job-seeking behaviour.

The present study evaluates an intervention which aims to reduce the psychological burden of unemployment and to increase job-seeking and job-finding through attributional change effected by cognitive-behaviour therapy strategies.

7.3 **ATTRIBUTION THEORY AND UNEMPLOYMENT**

It has been reported that a generalised sense of helplessness can occur if unemployment, accompanied by successive failures to find a job, becomes prolonged (Wortman &

Brehm, 1975) Baum, Fleming & Reddy (1986) noted that, as the length of unemployment increased, there was increased catecholamine reactivity to uncontrollable feedback, reduced persistence on tasks, and diminished expectations about being able to regain control of uncontrollable situations. These results fit neatly with the learned helplessness attributional reformulation (Abramson et al., 1978)

Feather and his associates have also shown that attributions for job displacement are associated with changes in self-concept (Feather, 1983b, Feather & O'Brien, 1987), depressive affect (Feather & Barber, 1983), life satisfaction (Feather & O'Brien, 1986), and expectations for future success (Feather & Davenport, 1981). Moreover, attributions for unemployment have been found to change as the duration of joblessness lengthens. Initially, attributions are more external, associated with attempts to preserve a positive view of the self. But, as the unemployment lengthens despite repeated efforts to find work, and particularly if similar others gain jobs, attributions for being unemployed shift from external to internal, and the person comes to view him/herself as deficient in competence and ability (global and stable). Self-esteem deficits, depressive symptoms and feelings of hopelessness and helplessness follow (Feather & Barber, 1983)

In addition to explaining the psychological effects of unemployment, attribution theory has been used to provide insights into the job-search process. Two pieces of research, in particular, are relevant here. Kulik & Rowland (1989) suggest that a combination of Weiner's attributional model (1979, 1985a) and recent research on the impact of causal attributions on anticipated outcomes (Sherman et al., 1981) rather than on past events, the usual focus of research, offer tools for understanding the job-search process. Weiner's model applied to the job-search context predicts that attributions made by job-seekers during the job-seeking process would influence their affective reactions to the job-seeking process, their expectancy of success, and therefore their persistence with job-seeking. Internal, stable and controllable attributions about success, and external, unstable and uncontrollable attributions for failure are necessary for maximum job-seeking performance, affect and outcome. The research of Sherman et al. (1981) suggests that attributions about the anticipated positive outcomes of job-seeking may provide a plausible "script" for job-search behaviour, such that when job-seekers attempt the task, the sequence of appropriate behaviours is already in their behavioural

repertoire Kulk & Rowland (1989) tested the efficacy of the Weiner and Sherman et al. theories in a longitudinal study. By charting the shifts in job-seekers' attributions over the course of the job-search, they found that, when job-seekers were proactively involved in looking for employment, they attributed their anticipated outcomes to unstable factors, they saw potential for change in their anticipated outcomes and consequently were willing to exert more effort and to be more actively involved in their search. Differences also existed in the attributional patterns of job-seekers who perceived themselves to be successful in job-seeking, compared with those who viewed themselves as unsuccessful (the former attributed their successful job-search and job opportunities to internal and stable factors).

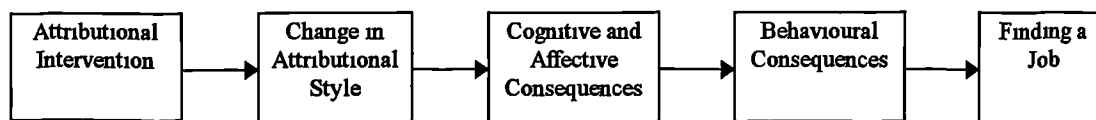
Prussia et al. (1993) offer an attributional model of unemployment. They argue that involuntary job loss is likely to stimulate the attributional process, and that the individual's explanation of the job loss event determines the negative psychological and behavioural consequences, in particular expectancy changes and affective reactions. The results of their research confirmed their predictions, internal and stable attributions for job loss negatively influenced job finding, and the process was mediated by expectations for reemployment. The important role played by attributions in affecting displaced workers' self-perceptions and expectations for reemployment, Prussia et al. suggest, has implications for the design of interventions to increase the reemployment of displaced workers. Not only should intervention programmes focus on increasing unemployed workers' confidence and self-efficacy about finding another job, as well as improving their general mental health, they should also include attributional training to discourage internal, stable attributions for job loss in order to reduce the deleterious psychological and behavioural consequences.

These results have implications for the type of assistance offered to job-seekers in their endeavour to find employment. While government agencies and outplacement consultancies often try to improve job seekers' opportunities through training and skill development, the above research suggests that assisting job-seekers to change their attributional frameworks will positively influence their job-search process and its outcome. To my knowledge, attributional interventions have not been used in this context.

7.4 THE RESEARCH MODEL

The Managing Resilience programme is an attributional change programme. In the previous study, the efficacy of the programme was demonstrated in the insurance domain, in this study, as a further development, it was adapted to the specific situation of long-term unemployment. Applied to the unemployment context, the attributional intervention model (Figure 7.1) anticipates that the programme will bring about change in attributional style, which will result in more external, specific and unstable attributions for job-seeking failures, and more internal, global and stable attributions for job-seeking successes. These, in turn, will create positive cognitive and affective outcomes (enhanced self-esteem, self-efficacy, motivation for work, life satisfaction and reduced psychological strain), as well as behavioural outcomes (greater persistence in job-seeking activity), with ultimate success in gaining re-employment.

Figure 7.1 Attributional Intervention Model Unemployment Context



Dependent Variables

The specific dependent variables in the model are slightly different for an unemployment context than those outlined in Chapter 4 for the work domain. In this section, therefore, the dependent variables in the unemployment model will be briefly described, together with the rationale for their choice. They will be considered in four general categories as per the model: changes in attributional style, cognitive and affective outcomes, behavioural outcomes and performance (Figure 7.1).

1. Attributional Style

Previous empirical studies have demonstrated that individuals' attributions for being

unemployed are associated with self-esteem deficits, depressive symptoms, feelings of hopelessness and pessimism, as well as doubts about self-efficacy (e.g. Feather & O'Brien, 1987). These, in turn, interfere with the likelihood of a successful outcome to the job-seeking, if it is continued at all. Assisting job-seekers to change their attributional frameworks, therefore, will positively influence their psychological health, the job-search process and its outcome. Attributional style has been described as a major coping mechanism for unemployment (Ostell & Divers, 1987). I would suggest that it acts as a powerful lever on job-seeking and job-finding as well. It is, of course, the main outcome variable in the model.

2. Cognitive and Affective Outcomes

Initially, consideration was given to using a measure of subjects' work involvement as an outcome variable, as previous studies have shown a significant relationship between this variable and speed of obtaining a new job after redundancy (Warr, Cook & Wall 1979). However, further reading indicated that work involvement has also been shown to be "*relatively resistant to change, having its base in personal value systems*" (Cook et al. 1981, p117). As the present study is concerned with measuring outcomes after an intervention, the use of this variable was therefore rejected.

Self-esteem

The self-esteem of unemployed samples has been shown to be significantly lower than that of employed groups (Feather, 1982). People low in self-esteem are likely to have reduced motivation for finding another job (Kimicki, 1989), and low expectancy for reemployment. In fact, poor self-esteem has been shown to be a significant barrier to engaging in job-seeking activity at all (Feather & O'Brien 1986). Self-esteem also has been found to significantly predict the sources used by displaced workers to obtain jobs, interviewer evaluations, and number of job offers received (Ellis & Taylor, 1983). Thus, the variable is important for this study.

Self-efficacy

Self-efficacy is the judgement of one's capabilities to organise and execute the courses of

action required to attain designated types of performance (Bandura, 1986) Studies have confirmed that self-efficacy expectancies determine the amount of effort expended, and the degree of persistence during adversity (Bandura, 1986, Locke et al., 1986), and that attributions are involved in the development of self-efficacy beliefs (Peterson & Stunkard, 1992) Self-efficacy has been shown to play a crucial role in increasing job-search activity (Eden & Aviram 1993), and in gaining re-employment (Holmes & Werbel, 1992) Conversely, prolonged unemployment has a negative effect on efficacy expectations, as well as on outcome expectations Thus low self-efficacy “*becomes a self-fulfilling prophesy as the chronically unemployed cease believing in their ability to regain employment*” (Eden & Aviram, 1993, p352) Self-efficacy is primarily conceptualised as a situation-specific belief However, Sherer et al. (1982) claim that self-efficacy, and the experiences of personal mastery that contribute to it, do generalise to actions other than the target behaviour These generalised expectancies, they suggest, influence the individual’s expectations of mastery in new situations To test the claims of Sherer et al., both forms of self-efficacy were measured in this research (see Outcome Measures below)

Life Satisfaction

Equivalent to the study of job satisfaction as an attributional outcome in occupational settings (e.g. Proudfoot et al., 1995, Furnham et al., 1992), life satisfaction, defined as the cognitive evaluation of one’s life (Demer, 1984), was chosen as a dependent variable for the unemployment context Longitudinal studies by Feather and associates have found that life satisfaction decreases significantly when people become unemployed, and that attributions for job loss are associated with the changes (Feather & O’Brien, 1987) Generally, the concept has been studied as part of larger construct, subjective well-being However, in this study, life satisfaction will be considered on its own, as an outcome of the attributional processes

Psychological Strain

Unemployment is a source of chronic stress Unemployed people have significantly higher GHQ scores (that is, they are substantially more at risk of psychiatric “caseness”) than employed people (Jahoda, 1988) In reviewing a number of studies, Warr (1984b) reports that the proportion of subjects in unemployed samples who score above the cut-

off for psychiatric caseness on the GHQ is typically 60%, in contrast with 20% of employed samples. Psychological strain is therefore an important outcome variable in this study.

Motivation to Seek Employment

Numerous studies have shown that prolonged unemployment can lead to apathy and a reduction in the motivation to seek work (e.g. Feather, 1982). Consideration of a number of motivation models, as well as their associated measurement scales, led to the conclusion that the expectancy-value theory of motivation (Vroom, 1964) was most appropriate for the present investigation. This approach implies that the strength of the motivation to seek work is a function both of the person's expectations that his or her efforts will result in employment, and to the perceived attractiveness (valence) of being in employment. Expectations and valence combine multiplicatively to determine the strength of motivation. (The former, it should be noted, are equivalent to the outcome expectancies of Bandura's self-efficacy model.) Weiner (1985) suggests that his model of achievement motivation and emotion links attribution theory with expectancy-value theories of motivation. Causal ascriptions for past performance (in particular causal stability) are linked to expectancy of goal attainment (expectancy of success), value is linked with the affect elicited following goal-directed activity⁵.

An expectancy-valence analysis of unemployment predicts (and studies such as Feather & Davenport, 1981, have confirmed) that repeated failure to get a job, and the attribution of that failure to stable factors, will result in reduced expectations of success and decreases in job-seeking effort. Factor analyses conducted by Feather (1990b) on a number of psychological variables associated with job-finding yielded the same two factors in several sets of data: one dimension concerned job valence, or the subjective value of having employment, the second related to low expectations about finding a job, helplessness, lack of perceived control and pessimism. These results confirm the choice of an expectancy-valence model of motivation for the present investigation.

⁵ It is on this point that Weiner's theory departs from traditional Expectancy-Value theories, which he criticises for their omission of emotions.

3. Behavioural Outcomes

Job-Seeking Activity

Several studies have reported that job-search activity tends to decrease with increasing lengths of unemployment and decreasing psychological health (Warr & Jackson, 1985, Feather, 1982) Job-seeking effort also has been shown to be related to job valence (Feather & O'Brien 1987) and expectancy of re-employment (Feather & Davenport, 1981) Consistent with Weiner's attributional model, and in line with unemployment studies, it is predicted that the combination of psychological improvements outlined above will enhance job-seeking activity as a result of the Managing Resilience programme

4. Performance

Job-Finding and Other Employment-Related 'Starts'

Burchell (1992) notes that a high proportion of the initial jobs which unemployed people take to re-enter employment are temporary, seasonal, casual or fixed term. The UK Employment Department acknowledges this fact, and in addition to full-time, part-time and self-employment, they recognise a number of other outcomes as being valuable to resocialising unemployed people to the job context and enhancing their employment prospects (as well as taking them off the unemployment register) Such activities include Training for Work programmes (work placements), Community Action programme (voluntary work), Job Clubs, and further education/training including the new Open Learning Credits programme The engagement of unemployed individuals in jobs or job-related activities is generically termed 'starts'

In terms of transitions from courses into either full-time or short-term jobs, some comparative data are available In Germany, 4-6 week motivation courses have resulted in 25% of participants gaining employment (Keiselbach & Svensson, 1988) In Britain, transition rates from various courses (non-psychological) into employment range from 4% to 27% (Dept of Employment, 1995) These data will be outlined in greater detail

in Research Design below. The Attributional Intervention Model (Figure 7.1) predicts that increased job-seeking activity associated with the Managing Resilience programme will bring about substantial levels of job-finding and other job-related 'starts'.

In summary, this section has described the dependent variables selected for the third experimental study. Variables relevant to the study of unemployment and specific to the research model were profiled, together with a rationale for their selection. As depicted in the Attributional Intervention Model, they were considered in four categories: changes in attributional style, cognitive and affective outcomes, behavioural outcomes and performance. An outline of the aims and hypotheses for the research study follows.

Research Aims

The aims of this study were to

- Assess the effectiveness of the Managing Resilience course for long-term (> 12 months) unemployed people in terms of:
 - * its psychological benefits
 - * its re-employment outcomes, and
 - * the movement of participants into other activities which are likely to enhance their job prospects
- Compare the course outcomes of the MR programme against a control programme of equal length and structure based on social support principles, in order to eliminate the effect on outcomes of non-specific factors such as attention, expectancy, the Hawthorne Effect and components of psychological treatment not unique to this intervention.
- Elicit the views and attitudes of participants about the usefulness of the Managing Resilience course for their job-seeking endeavour.

Hypotheses

1. It was hypothesised that, in comparison with a control programme of equal length and structure, the Managing Resilience programme would bring about greater

improvements in subjects' attributional style, which would positively affect self-esteem, self-efficacy, life satisfaction, motivation for work and psychological health, that the improvements would persist longer, and would flow on to enhance job-seeking and job-finding

- 2 It was predicted that the outcomes of the MR programme (in terms of psychological well-being and success in finding a job) would be predicted by subjects' demographic characteristics and pre-test scores on the psychological variables. Not only from a scientific point of view, but for organisational reasons, including issues of cost-effectiveness, it is valuable to be able to predict for which individuals the MR programme is most beneficial, in terms of finding employment or psychologically inoculating them against the negative effects of unemployment. Hartman (1979) notes that, in searching for variables that predict psychotherapy outcome, few studies consider the whole spectrum of variables, from client and therapist characteristics through process variables to outcome. In this study, the differential effect of tramer on outcome was controlled through the research design. Client demographic characteristics and their pre-test psychological profile remained possible predictors of outcome.
- 3 It was hypothesised that the contribution of the unique ingredients of the MR programme would be equal to that of the non-specific factors in the intervention. In terms of size of the effect, meta-analytic comparisons of cognitive psychotherapy interventions with no-treatment controls typically yield mean effect sizes of approximately .7, with group therapies producing a little more than half the effect (.58) of individual therapies (.93) (Smith & Glass, 1977, Dush et al. 1983). When contrasted against placebo treatments, however, the effect sizes are much less substantial. For example, Smith et al. (1980) found that the mean effect size of psychotherapy compared with placebo was .29. In their meta-analysis of 246 group cognitive therapy studies, Dush et al. (1983) calculated a mean effect size of .36 with placebos, rather than no-treatment, as controls. Clearly, gains attainable from non-specific factors associated with mere involvement in an intervention account for a sizeable proportion of the effect in both individual and group cognitive therapy. On the basis of these meta-analyses, it was predicted that the effect size of the MR programme in comparison with a no-treatment control would be double that of the MR programme compared with a placebo control programme, that is, it is predicted

that the unique ingredients of the MR programme would contribute equally with the non-specific factors to the effect size

7.5 METHOD

Statistical Power

Maxwell, Cole, Arvey & Salas (1991) suggest 6 ways in which statistical power can be enhanced increasing the sample size, increasing the alpha level, selecting a particularly homogeneous group of subjects, carefully controlling experimental materials, incorporating a pre-test in the design and using analysis of covariance, and increasing the length of the post-test and using analysis of variance. Consideration was given in turn to each method for increasing power

- 1 Calculations were performed to ascertain the sample size needed for sufficient statistical power in the study (Cohen, 1990). Based on the previous study, the effect size was 0.6, the significance level was set at 0.05, and the power at 80%, which led to the conclusion that about 70 subjects were needed in each group (Dallal, 1988). To allow for attrition from the programme and to ensure sufficient power by the follow-up phase of the study, a sample size of 95 per condition was set
- 2 Increasing the alpha level beyond 0.05 was not considered viable
- 3 The sample of subjects used in the study was deliberately homogeneous long-term unemployed people of a professional or executive background (see below)
- 4 The experimental materials were standardised and strictly controlled
- 5 A pre-test was employed, and analysis of covariance used as the primary method to test for group differences
- 6 A post-test consisting of a significant number of outcome variables ranging from psychological scales to behavioural measures was utilised

In these ways, the statistical power of the study was maximised

Recruitment of Sample

Long-term (>12 months) unemployed professionals (Standard Occupational Classification groups 1,2,3,7), living in London and the South East were recruited as

volunteers from the public Employment Service and a major out-placement company, Sanders & Sidney PLC. Unexpected difficulty was encountered in attracting long-term unemployed people to the programme. Advertisements were placed in national newspapers and radio, and the programme was advertised through internal communication channels, but the response in each case was meagre⁶

A number of contingency measures were introduced

1) The courses were run sequentially, rather than simultaneously, as planned. Whenever sufficient applications had been received to fill both a Managing Resilience and a control course, applicants were randomly assigned to either course, and the courses were held (see Research Design below, and Timeline Appendix IV)

2) A variety of alternative recruitment activities were undertaken by the Employment Service (ES) and Sanders & Sidney (S&S). S&S consultants individually encouraged each of their clients to join the programme. The ES sent out a mail-shot to 500 of their clients. A further 350 ES clients were "invited" by the ES to attend a series of presentations to be conducted by me and an administrative assistant. Unfortunately, the tone of the letter was rather threatening and the information concerning the purpose of the meeting was incorrect. Only 90 of the 350 attended, and most were angry and resentful. Numerous Job Clubs throughout London were visited, fifty applications resulted from this very time-intensive endeavour. To capitalise on the media attention the programme had been receiving, I sent information to a number of other radio and television stations. Despite all these efforts, applications were still extremely slow. Moreover, many who enquired did not meet the eligibility criteria: they were less than 12 months unemployed, or lived outside the Greater London area.

Thus we were faced with a paradox: here was a programme to help people overcome the psychological problems associated with long-term unemployment, yet the problem itself, it was suspected, was preventing their participation. Long term unemployment has been distinguished from shorter periods of job loss by, among other things, generalised feelings of helplessness and lower expectations of success (Baum et al., 1986). The

⁶ For example, a series of advertisements placed by the Employment Service in a variety of national newspapers and on radio resulted in only 99 enquiries altogether, of whom 56 individuals applied to do the course. A similarly poor response resulted from personalised letters of invitation from Sanders & Sidney to their long-term clients - 90 people were invited, 18 applied to participate in the programme.

learned helplessness model maintains that, after repeated exposure to uncontrollable events, and repeated unsuccessful efforts at control, the individual will give up responding. Motivational, cognitive and emotional deficits may then arise (Abramson et al 1978, Seligman 1975). This was consistent with our experience in this study. Many potential participants commented that the repeated knockbacks had caused them to cease trying to find a job, and, by extension, to stop attending courses that might help them gain re-employment. Our explanation was reinforced by the fact that the programme attracted many enquiries from shorter-term unemployed people, they had not yet become demotivated and hopeless from repeated failures.

3) In March, with the project well behind schedule, the Employment Service decided to promote the programme internally through their own offices and Job Centres. Fifty centres were invited to nominate 3 clients each for the programme. Unfortunately, the information either didn't reach the appropriate persons, or it failed to generate any interest due to government targets to fill other courses. Finally, with the study at risk of being terminated, I requested that an advertisement be placed in *The Times*, Recruitment Section, which has a large (3.7 million) and targeted (unemployed professionals) readership. This advertisement brought a surplus of suitable applications. In order to avoid the risk of causing applicants feelings of hopelessness by another rejection, it was decided to accept all applicants, and conduct extra courses to accommodate them. The final series of courses began in June, and were completed in October - six months after the planned completion date.

In total, 301 people applied to attend the programme, of whom 289 were accepted as eligible (Table 7.1).

Table 7.1. Recruitment and Attendance Statistics

	E.S.	S&S	Total
Number of enquiries from advertisements/mailshots	456	47	503
Number of application forms sent out	291	29	320
Number of completed application forms returned	272	24	301
Number of applicants accepted on to the programme	265	24	289
Number who started the courses	225	23	248
Number who completed the programme	185	18	203*

* An additional 14 subjects commenced jobs or training during the programme, which prevented their continuing with the course.

Research Design

A controlled experimental research paradigm was employed. Initially, it was planned to use a design incorporating an experimental group and two control groups: one consisting of an active intervention emphasising social support (in order to begin to isolate the active ingredients in the Managing Resilience programme), the other an inactive no-training control group (to control for the placebo effect). However, as the problem with recruitment of subjects became more difficult, reluctantly it was decided to dispense with the second inactive control group.

Two hundred and eighty-nine long-term unemployed people were invited to participate in the programme. They were randomly allocated to two groups to receive the Managing Resilience course, or a control training course based on social support principles ($n = 145, 144$ respectively). The courses were matched on all variables (e.g. length, structure, inclusion of "homework") other than their detailed content and specific strategies (see Interventions below).

Two hundred and forty-eight subjects (225 ES clients and 23 S&S clients) actually commenced the programme: MR course 134, Control course 113. Sixty-nine clients, having accepted places on the programme, did not attend. This group included 17 candidates who gained jobs or full-time course placements in the 4 - 6 weeks between being accepted on the programme, and the commencement of their course, i.e. during the pre-course monitoring phase. Several claimed that their acceptance on to the course changed their outlook, which reflected positively in their job-seeking/interview behaviour. This may be seen as an example of the expectancy effect. The remaining 42 failed to attend the programme. This "non-attendance" rate (15%) was lower than expected, and may have been due to the careful screening at the point of enquiry. The pre-course self-monitoring required of all prospective delegates also, I suggest, would have acted to increase their commitment to attending the programme.

Both the MR and Control groups attended the seven 3-hour weekly workshops in subgroups of 10 to 15. In total, eighteen courses were conducted, nine MR and nine Control, between January and July 1994. Each course was followed by a refresher

workshop three months after the end of the training. The eighteen refresher workshops were held from June to October 1994 (Time Line Appendix IV)

A priori steps were taken in the design to prevent the contamination effects that can occur in studies involving evaluation of educational programmes, of which Dunn (1994) warns

“If a trial involves the evaluation of some sort of educational activity then there will be contamination through ‘cross-talk’. Patients might try to compensate for the perceived deficiencies in their service and might even attempt to change sides. Patient knowledge (lack of ‘blindness’) is likely to contribute to a placebo effect, and there is also the possibility of patient resentment if one of the competing services is perceived to be better than the other” (p201)

In the current study, it was not revealed to subjects that two different courses were being conducted and, although the experimental and control courses for each series were held concurrently, they were on different days to prevent ‘cross-talk’. The ethical issue of whether or not to inform control groups of what they were missing, about which Dunn (1994) also warns, was overcome by ensuring that the control course was also potentially beneficial, and not just a neutral intervention, as is often the case

To compensate for the lack of the no-intervention control group, statistics were obtained from the UK Department of Employment pertaining to ‘starts’ from their regular programmes, which could be used as base-rate comparisons for our programmes. Attendance at some of the programmes, such as the Jobplan and Restart courses, is a standard requirement for the continuation of government benefits; therefore, our clients, as well as other ES clients not participating in our evaluation, had all attended these programmes. Statistics were obtained both for the London and South East Region (where this study was located), and nationally

- Jobplan Workshops, a 5-day course, mandatory for clients who have been unemployed for 12 months or more, result in 4% of clients in the London and South East Region gaining short-term or full-time jobs (PIMS, 1985). A national evaluation conducted in 1994 by the ES, which compared the outcomes of Jobplan workshops (n=1051) with those of a no-intervention control group (n=734), indicated that 24% of the Jobplan group were off the unemployment register (that is, in jobs or job-

related activities such as training, work placements or voluntary work) by 16 weeks after they were referred to the Jobplan course. The equivalent figure for the no-intervention control group was 19% (Department of Employment, 1994)

- A 1992 survey of 2430 'completers' of the Restart programme (a week-long workshop, available for anyone 6+ months unemployed, but mandatory for those unemployed for 2 or more years), showed that by 13 weeks after course completion, 10.7% of respondents who had attended voluntarily were in jobs, full- or part-time, compared with 4.3% who attended mandatorily (Szary, 1993). However, these statistics need to be interpreted with caution, as there was only a 69% response rate to the survey. It is conceivable that those who responded did so because they had taken up job-related options after the course, as was intended. The statistics therefore could be over-estimates. London and South-East Region use a more systematic method for collecting their data. The overall rate of transfer into jobs from Restart courses in this region is 5% (Dept. of Employment, 1995)
- The ED Open Learning Credits programme was piloted in 1993/4 throughout Britain. 2,900 long-term (mean 22 months) unemployed, mid-age individuals from white-collar occupational backgrounds took courses to gain professional qualifications, such as National Vocational Qualifications. The evaluation indicated that 27% of the participants were in jobs by 6-7 months after starting the programme. The average cost of providing open learning training per client was £750 (Crowley-Bainton, 1995)

Of the data available, this latter programme provides the most suitable comparison for the current evaluation, as the client demographic profiles are equivalent (long-term unemployed, mid-age professionals, see below). However, it must be noted that the Open Learning Programme is 6 months in duration, rather longer than our 7 week Managing Resilience course.

Demographic Profile of Course Participants

Subjects ranged in age from 23 years to 62 years in the MR group, and from 23 years to

61 years in the control group, with a mean age in both groups of 43 years. Length of unemployment was approximately 2 years (25.8 months in the MR group, 23.1 months in the control group), ranging from less than 12 months to 12 years. 83% of subjects were male⁷

Interestingly, the demographic profile of the S&S clients was not dissimilar to that of the ES clients, despite the different types of service offered by each organisation. The average age of the S&S clients was 48 years, and their average length of unemployment was 20 months. The equivalent figures for the ES clients were 43 years and 20 months.

This profile of participants (predominantly mid-age men who have been unemployed for long periods of time) is precisely that which has been shown to be associated with higher levels of psychological distress (Hartley & Fryer, 1984, Warr, 1983), which, in turn, interferes with job-finding. In this study, therefore, we were dealing with individuals who were likely to have a history of failure, to be distressed, and to be more “difficult to help”.

The Interventions

- **Managing Resilience (MR) Programme**

A new version of the Managing Resilience programme was written for the job-seeking context. It retains all the features of the original programme, but the principles, strategies and content are applied to job-seeking, rather than to insurance-selling. It therefore aims to assist unemployed people to reduce their psychological vulnerability to the potentially negative features of unemployment, to intensify their job-seeking activity and their job-finding through attributional change (Table 7.2). Consistent with cognitive therapy on which it is based, the attributional training focuses on participants' beliefs about themselves, their experiences and their future.

- **Control Programme**

An alternative training programme emphasising social support was used as a control.

⁷ Many more males than females are registered unemployed. This gender breakdown is typical of Employment Service programmes, e.g. JobPlan Tracking Study, 1994.

intervention There is a substantial literature confirming the buffering role of social support in alleviating stress (Cohen & Wills, 1985), and specifically in moderating the negative psychological consequences of unemployment (e.g. Ullah, Banks & Warr, 1985) Greater amounts of time spent by unemployed people with friends is associated with low scores on measures of general distress, depression and anxiety (Warr et al., 1985) Yet, unfortunately, continuing unemployment is associated with a restriction of networks (Warr et al., 1988), and a significant reduction in the number of non-family members giving active support (Jackson, 1988) However, although the relationship of social support to psychological health during unemployment has been amply demonstrated, the influence of social support on gaining reemployment is unclear (e.g. Holmes & Werbell, 1992) Nonetheless, social support has been shown to influence job-seeking motivation (both positively and negatively, depending on whether the individual's significant other values job-seeking), and to counteract the negative effects of unsuccessful job-search on mental health (Caplan et al., 1989)

Social support therapy has been found to be an effective intervention for stress-related problems (Sallis et al., 1987) It was therefore predicted to be a relevant intervention for unemployed people, and a suitable control for the Managing Resilience programme The programme was written specifically for this study by Jerome Carson, Clinical Psychologist at the Institute of Psychiatry Like the Managing Resilience programme, it was customised by applying the relevant principles to the job-seeking context The two programmes were based on widely accepted principles of good training methodology, and matched for all variables (e.g. format, structure, inclusion of goal-setting, homework, monitoring and feedback) other than the detailed content and specific strategies (Table 7.2)

The Trainers

Both programmes were conducted by two psychologist trainers, of whom, in the majority of cases, I was one I was assisted by three Occupational Psychologists from the Employment Service, two Senior Consultants from Sanders & Sidney, and two

Table 7 2 *Essentials of the Managing Resilience and Control Programmes*

	MANAGING RESILIENCE PROGRAMME	SOCIAL SUPPORT CONTROL PROGRAMME
LENGTH	21 hours	21 hours
STRUCTURE	7 3-hour sessions, one per week. "Homework" assignments between the sessions to assist experimentation with, and application of, strategies	7 3-hour sessions, one per week. "Homework" assignments between sessions to assist extension and application of each topic
CONTENT		
Session 1	Introduction to the cognitive model	The concept of social support, health and unemployment
Session 2	Automatic thoughts, goal-setting, time management, task breakdown	Life satisfaction graphs, peaks and troughs, the importance of people
Session 3	Thought recording and common thinking errors, planning	Role mapping, satisfying relationships, personal support networks
Session 4	Techniques to change unhelpful thinking.	Social awareness, creating a positive impression, rules of relationships
Session 5	Gaining access to deeper beliefs, dimensions of attributional thinking	Listening and conversation skills
Session 6	Specific applications to personal and work situations	People as resources, individual presentations
Seminar 7	Integration of strategies, maintenance of effect, and relapse prevention	Goal-setting, course summary
TRAINING PROCESSES	Socratic questioning, group discussions, self-observation, experimentation, individual and group activities, homework assignments	Small group activities, group discussions, individual presentations
SESSION FORMAT	<ul style="list-style-type: none"> * Review of previous session * Discussion of completed homework assignments * Introduction of session topic(s) * Individual or group activities * Feedback and discussion * Suggestion of homework tasks * Summary of the session * Survey of clients' response to session 	<ul style="list-style-type: none"> * Review of previous session * Discussion of completed homework assignments * Introduction of session topic * Discussion * Individual or group activities * Feedback. * Outline of homework task. * Summary of the session

Psychologists from the Institute of Psychiatry⁸, all of whom I trained in the psychological strategies underpinning the programme. The training programme was the same as that used in the insurance study: a two half-day 'Train the Trainers' course, written with a colleague, Dr Melanie Marks.

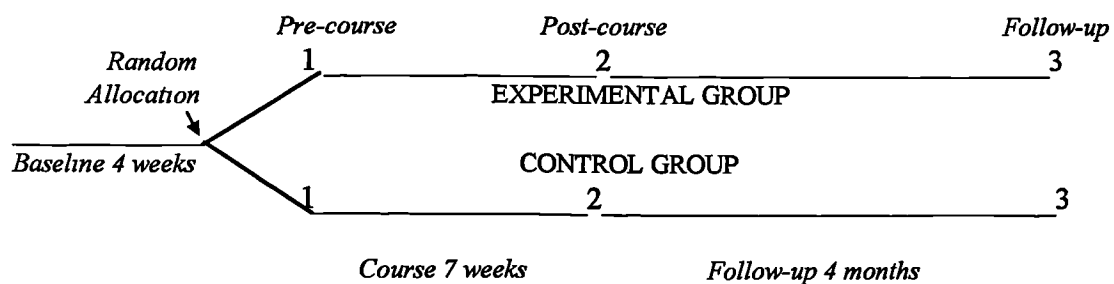
Data Collection

All participants monitored their daily job-seeking activities for 4 weeks prior to the commencement of training (base-line), throughout the 7 week course and for 4 months after training was completed, a total of 27 weeks. In addition, participants completed questionnaires assessing a number of psychological characteristics relevant to job-seeking. The questionnaires were administered at three points in time (Figure 7.2)

- 1 prior to the course (pre-test)
- 2 at the completion of training to assess immediate effects (post-test 1)
- 3 at follow-up, 4 months after course completion⁹, to test for maintenance of effect (post-test 2)

Clients' employment status was also ascertained at these times.

Figure 7.2 Research Design



Measures

The same four categories of outcome used in the previous studies were employed in this study: participant feedback (reaction), psychological outcomes (learning), job-seeking

⁸ I am grateful to Jill Flint-Taylor and Daniel Brown for their help.

⁹ The follow-up period was set at four months to more than adequately cover the average length of the job-finding process.

activity (behaviour), and job-finding (results) Both self-report and behavioural data were collected to avoid problems associated with mono-method bias in evaluation In order to standardise the research methodology, and to provide for points of comparison with other studies, measures were selected that had been used in the second research study, or, where not appropriate for the job-seeking context, scales that had been used in prior unemployment research

1. *Participant Feedback*

Course Reaction Forms (Appendix I) were completed by subjects at the end of the seven-week courses Feedback was sought on the quality of the course generally and in relation to subjects' individual needs, the course content and method, the training process, and the course environment (training room, equipment, food/beverages etc)

2. *Psychological Outcomes*

Attributional Style

Due to the lack of a domain-specific attributional style measure for the unemployment context, the Attributional Style Questionnaire (Peterson et al., 1982) was used in this study The internal reliability of the instrument, as measured by the Cronbach's alpha, was CoPos alpha = .77, CoNeg alpha = .77

Self-Esteem

The six-item Work Self-Esteem Scale was adapted from Quinn & Shepard (1974) for the second experimental study, because of the lack of acceptable distribution in scores on the Rosenberg Self Esteem Scale On the basis of its performance in that study (the scale had good internal consistency, it adequately discriminated between groups and there was a good range in scores), and for comparative purposes too, the decision was made to use it again in this study The internal consistency in this study was alpha = .83

Self Efficacy

a) Specific job-seeking self-efficacy was measured with a 6 item scale from Caplan et al (1989), which rated how good subjects felt they were at performing behaviours required for getting a job, such as writing job applications, making 'on spec' telephone

calls to employers, preparing curricula vitae, answering job advertisements, being interviewed, using their social networks to obtain job leads Caplan et al. (1989) report that the index yielded an alpha coefficient of 0.87, in this study, the internal reliability was 0.81

b) The General Self Efficacy Scale (Sherer et al. 1982) is a 17 item scale to measure generalised self-efficacy expectations. The scale measures situation-independent expectancies, “*which are likely to manifest themselves in general patterns of behaviour, and in responses to situations about which the individual has little or no information*” (Sherer et al. 1982, p671). Psychometric details of the scale have been described in Chapter 4. In addition, Sherer et al. report that the scale correlates with employment status, number of jobs quit, number of times fired and education level. In this study, the internal consistency of the scale was 0.88

Life Satisfaction

A four-item scale of life satisfaction, developed by Kinicki & Latack (1990) for their study of job loss, was used in this research. Items focus on general life satisfaction, family, leisure and health status. Responses are obtained on five point Likert scale ranging from very dissatisfied (1) to very satisfied (5). Data obtained by Kinicki & Latack (1990) from 159 employees made redundant from their company yielded a mean of 3.91 (SD= 0.77), and a coefficient alpha of 0.79. In this study, the coefficient alpha was 0.83

Psychological Strain

a) The General Health Questionnaire 30 (Goldberg, 1978) is used regularly in unemployment research. The instrument covers self-confidence, stress, problem-solving, depression, sleep loss and associated features, the criterion for psychiatric ‘caseness’ is 5 or above. The scale has been well validated in a number of studies with unemployed samples (e.g. Warr, 1984, Warr, Jackson & Banks, 1988, Banks, 1983)

b) In addition to the measurement of acute or episodic strain (the regular scoring of the GHQ), the assessment of chronic psychological strain was felt to be warranted. As all the subjects were unemployed for 12 months and more, it can be assumed that the psychological symptoms commonly associated with unemployment had been present for some time. The chronicity scoring of the GHQ 30 measures the presence of chronic

psychological strain, existing over some considerable period of time, rather than over the past few weeks. The criteria for psychiatric caseness is 12. The alpha coefficient of the GHQ in the present study was .93, and of the GHQ (C), .93.

Motivation to Seek Employment

Well-tested and commonly-used intrinsic motivation scales are, in the main, job-focused, which renders them inappropriate for use in this study. Yet motivation to seek employment is an important variable in the conceptual model employed in this research. In line with Weiner's attributional theory, an expectancy-valence theory of motivation was utilised, and a measure was developed which encompassed both aspects - expectations for reemployment and employment value. Valence of work was assessed by 3 items taken from Vinokur & Caplan (1987) which questioned the extent to which work is viewed as an important part of one's daily life, a source of satisfaction in life, and the extent to which it means more than just money¹⁰. The three-item index was scored by averaging the answers on the 5-point response scales. The items were reported as having a reliability alpha coefficient of .62 (Vinokur & Caplan, 1987). In this study, the alpha coefficient was .78. Expectancy of reemployment was measured by a single item, again adapted from Vinokur & Caplan (1987) to which respondents were required to answer along a ten-point scale: How likely is it, that if you try hard to get a job in the next few months, you will get one? The two measures were combined in a multiplicative fashion to create an overall index of motivation to gain reemployment.

3. Behavioural Outcomes

Job Search Activity

This variable was quantified, after Eden & Aviram (1993), using self-report forms on which the participants wrote down each job-search activity in which they engaged in the previous week. The 'Job-Seeking Logs' (Appendix V) called for detailed daily entries about the type of job-search activity (e.g. interview, telephone call, job application etc.), and the number of hours spent each day in job-seeking. The Job-Seeking Logs were scored by calculating the number of job-search activities undertaken per week, with no

¹⁰ The scale is very similar to Feather's 3-item measure of employment valence (Feather & Davenport, 1981).

judgement of their quality or outcome, as well as the number of hours spent job-seeking per week

Consistent with the prediction that the psychological improvements will translate into greater persistence in job-seeking effort, five categories of job-seeking behaviour were measured. Activities involving high psychological risk, such as networking and speculative calls¹¹, were assessed, in addition to those requiring persistence (following-up job applications and interviews), as well as regular job-seeking activities such as job applications and interviews

4. Performance Outcomes

Job-Finding

Measured 4 months after the completion of the courses, subjects' employment status was indicated by their responses to the questions

Are you currently employed in paid work?

If yes, how many hours per week?

Is the job permanent or temporary?

Is the job related to your own profession?

Are you working in your own business?

If yes, is it part-time or full-time?

In addition, a number of questions were asked to assess the extent to which the programme resulted in delegates entering into activities which were likely to enhance their job prospects. These activities included the Employment Service's "Training for Work" programme, a work placement scheme, the "Connect for Growth" course for managers, as well as other training courses such as university degrees, business courses, technical courses and so on

Response Rate

Various techniques were incorporated into the study to minimise sample attrition, and to

¹¹ Typically, the use of networks is restricted during unemployment (Warr et al, 1988), and yet it is popularly recognised that the majority of professional jobs are gained through speculative calls and networking

increase the return rate of questionnaires and job-seeking logs. Prize draws were conducted for those who had completed weekly job-seeking logs over the entire length of the project, and who had returned the 3 questionnaires. Eligible delegates were given the choice of taking a voucher to the value of £20, or entering their name in a draw, the value of which was equivalent to £20 per delegate. Winners chose the nature of their prize. A separate prize draw was conducted for each series of courses.

Other strategies employed to enhance response rates included giving subjects advance warning that a questionnaire was coming, maintaining regular contact with subjects after the completion of the courses (job-seeking logs were sent to delegates approximately monthly), follow-up phone calls and thank you letters, and "reunion" sessions which were conducted at the 4 month follow-up measurement point, at which time the prize draws took place.

The strategies worked well - there was an 89% response rate at post-test and sample attrition was minimal (see Completers and Dropouts below). The response rate at the four month follow-up point was not so high (73%) due, in the main, to delegates getting jobs. The return of job-seeking logs and questionnaires understandably was not a priority for these people, although they were still eligible to be included in the prize draw. Nevertheless, some of the subjects who found employment did complete follow-up questionnaires.

Completers and "Dropouts"

Two hundred and three delegates (110 MR, 93 Control) of the original 248 completed the programme (Table 7.1). An additional fourteen delegates (5 MR, 9 Control) gained employment or a place on a training scheme during the programme, and therefore were unable to attend from that point. Thirty-one delegates (20 MR, 11 Control) left the programme part-way through for reasons other than gaining employment. This represents an attrition rate of 13%. The main exit points for these clients were after the first and third sessions.

7.6 RESULTS

Data description and analysis were performed using SPSS Version 4 (1990). The results are reported below in five sections, as per the aims and hypotheses of the study

- 1) Participant Reaction
- 2) Group Differences in Psychological Variables, Job-seeking and Job-finding
- 3) Testing the Attribution Intervention Model
- 4) Prognostic Indicators Managing Resilience Programme
- 5) MR Programme Unique Ingredients and Non-Specific Factors

1) Participant Reaction

The results are summarised in Figures 7.3a (MR courses) and 7.3b (Control courses). In general, the quality of the Managing Resilience programme was rated more highly than the Social Support programme. Delegates felt it was more relevant to their needs, more useful, with a better training method, pace and length. There were, of course, individual differences. A few participants took longer than expected to socialise to the cognitive model, despite the greater emphasis given to it in this programme than in regular cognitive therapy sessions. A typical reaction from one such participant was "I don't think, I just do!" Some participants also felt uncomfortable with the changes that an optimistic attributional style implied, believing that they would be viewed as conceited or immodest (particularly important in a culture in which modesty is valued highly). It was necessary to discuss the difference between the way they perceived their successes and failures, and the way in which they presented them to others, viz an optimistic attributional style implies no diminution of modesty, but it does require an appreciation of one's strengths.

Despite initial misgivings from these subjects, most were able to gain something positive from the programme (because persuasion was deliberately avoided, subjects were encouraged to sample and use from the programme those aspects with which they felt comfortable). Other participants responded with relief or even excitement to be able to cast off the mantle of restrictive socialisation, and attribute their successes and failures more veridically.

Figure 7 3a

**MANAGING RESILIENCE COURSES
PARTICIPANT FEEDBACK
Total number of forms completed : 109**

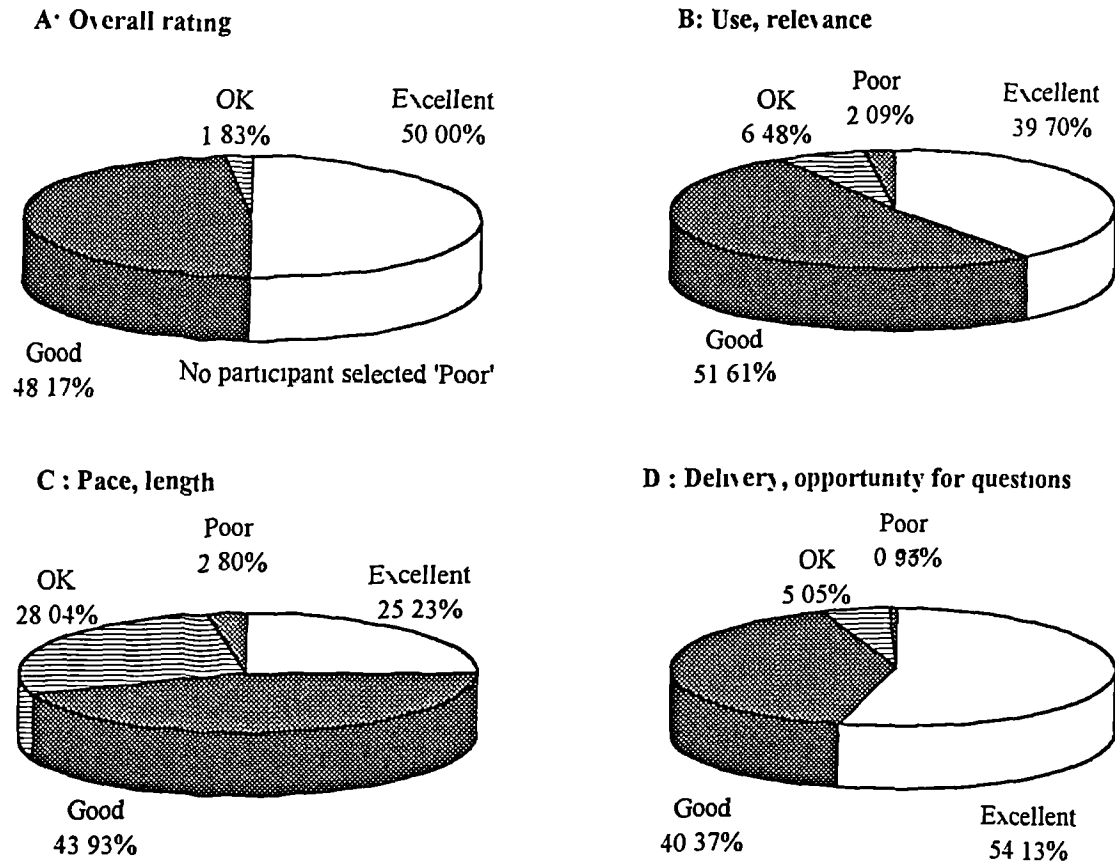
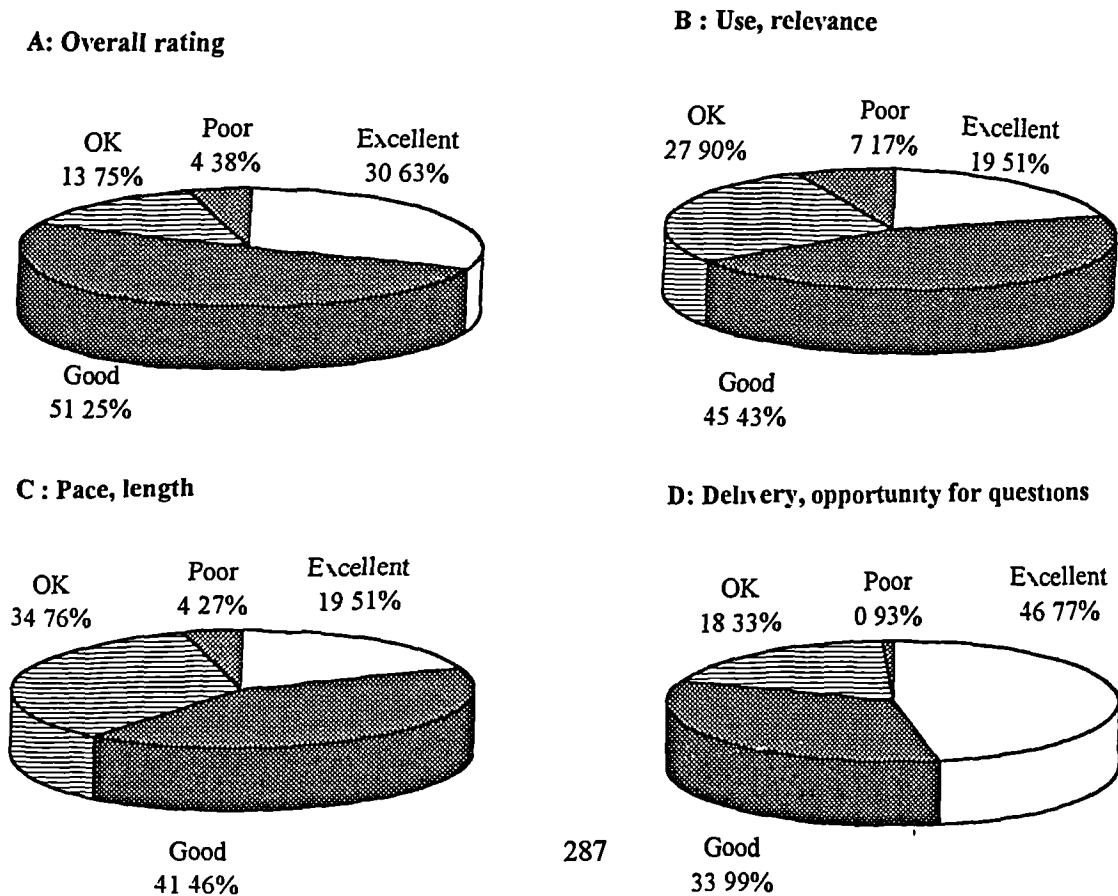


Figure 7 3b

**CONTROL COURSES
PARTICIPANT FEEDBACK
Total number of forms completed : 82**



2) Analysis of Group Differences

In order to adjust for potentially confounding differences in the pre-test variables, analysis of covariance, with pre-test scores as the covariates and post-test scores as the dependent variables, was used to test for group differences. As Dunn (1994) points out, this method of statistical analysis not only improves precision, but the covariate adjustment copes with any imbalance in the baseline measures that has arisen by chance in the randomisation.

To test that the assumptions underlying ANCOVA were met, a group-by-pretest interaction was fitted for each of the outcome variables. When they were not significant, the interactions were dropped from the model, and the treatment effect estimated by the main effect of group. When the interactions were significant (in a minority of cases, see below), the data were plotted to determine the exact nature of the slopes and the impact of the interventions. As in previous studies, the change scores were then computed (pre/during course, pre/post course) and group differences were assessed with t tests¹².

Psychological Outcomes

Significantly greater improvements had occurred by the end of training in the Managing Resilience group than in the control group, in each of the following psychological variables:

- * Attributional Style (Positive and Negative)
- * Work Self-Esteem
- * Job-Seeking Self-Efficacy
- * Psychological Strain
- * Chronic Strain
- * Motivation for Work
- * Life Satisfaction

Furthermore, the differences were large enough to be real differences, not chance fluctuations. Means, standard deviations and ANCOVA F values for each of the

¹² Again, it is acknowledged that this method is less satisfactory than analysis of covariance, but does provide some way of coping with the influence of pre-test scores on post-test

variables are presented in Table 7.3. (The assumptions underlying analysis of covariance were tested and met for each of the psychological variables)

Notably, on the General Health Questionnaire, there was a significant reduction in the percentage of psychiatric 'caseness' (scores > 5), from 59% to 21%, associated with the MR programme (chi-square = 42.37, df = 1, $p < 0.001$). This represents a substantial improvement in psychological well-being within the group, equivalent to a reduction in psychiatric 'caseness' from that typical of unemployed samples to one found in samples of people at work (Warr, 1984a). Furthermore, there was a significant reduction in chronic psychological strain, that is, strain existing over some considerable period of time, in contrast to acute or episodic strain (from 62% to 24%, chi-square = 42.37, df = 1, $p < 0.001$).

Contrary to the Sherer et al. (1982) contention, no significant difference between groups was found in subjects' general self-efficacy, although significant effects were found in job-seeking self-efficacy. These results are consistent with self-efficacy theory, which stipulates that the construct is a situation-specific belief (Bandura, 1977), and also with comparative studies which show that domain-related efficacy scales are better predictors than are general measures of perceived personal control (Bandura, 1992). Gist (1987) suggests that although omnibus measures of self-efficacy are convenient, they are probably at great expense to predictive power, and that a more promising measure of general self-efficacy can be gained by aggregating across a number of related but domain-specific measures. Perhaps the final word on general self-efficacy should be given to Bandura

"Self-efficacy theory eschews all-purpose omnibus measures using a fixed set of items shrouded in ambiguity concerning the domain of functioning, the level of situational demands and the settings in which the behaviour will be performed"
(Bandura, 1992, p122)

In the most part, the psychological advantages of the Managing Resilience programme over the control programme were maintained until the 4 month follow-up point. Two of the variables, professional self-esteem and life satisfaction, lost their statistical advantage over the control clients, but improvements were still present (Table 7.3). For the remainder of the variables, the psychological advantages brought about by the Managing Resilience programme were maintained statistically and in real terms.

Table 7.3 Psychological Outcomes

	MANAGING-RESILIENCE GROUP mean (s.d.)				CONTROL GROUP mean (s.d.)				GROUP DIFFERENCES F(df1,df2)		
	Pre-course (1) #	Post-course (2) #	Follow-up (3) #	Pre-course (1) #	Post-course (2) #	Follow-up (3) #	Pre-course (1) #	Post-course (2) #	Follow-up (3) #	Pre-course Vs Post-Course	Pre-course Vs Follow-up
Attributional Style (Positive)	15.57 (1.84)	16.48 (2.01)	16.11 (1.88)	15.01 (2.12)	15.58 (2.07)	15.28 (2.22)	15.01 (2.12)	15.58 (2.07)	15.28 (2.22)	9.87 (1,169)**	5.82 (1,154)*
Attributional Style (Negative)	13.38 (2.11)	11.92 (2.74)	12.62 (3.07)	13.41 (2.16)	13.17 (2.41)	13.78 (2.09)	13.41 (2.16)	13.17 (2.41)	13.78 (2.09)	13.82 (1,169)***	7.1 (1,163)**
Self - Esteem	3.67 (1.07)	4.31 (0.89)	4.18 (0.98)	3.62 (1.16)	3.92 (1.01)	3.79 (1.26)	3.62 (1.16)	3.92 (1.01)	3.79 (1.26)	6.25 (1,187)**	1.6 (1,178)
Job-Seeking Self-Efficacy	3.32 (0.63)	3.65 (0.57)	3.66 (0.65)	3.3 (0.66)	3.39 (0.61)	3.42 (0.07)	3.3 (0.66)	3.39 (0.61)	3.42 (0.07)	11.2 (1,183)***	4.62 (1,175)*
General Self-Efficacy	63.64 (10.2)	65.43 (9.17)	65.01 (10.41)	61.84 (12.01)	62.0 (10.43)	61.71 (10.22)	61.84 (12.01)	62.0 (10.43)	61.71 (10.22)	0.78 (1,155)	0.32 (1,156)
Psychological Strain (GHQ)	10.02 (7.76)	3.72 (5.81)	4.92 (7.21)	9.46 (8.51)	5.16 (7.01)	6.58 (8.14)	9.46 (8.51)	5.16 (7.01)	6.58 (8.14)	3.91 (1,172)*	3.85 (1,166)*
Chronic Strain (CGHQ)	15.1 (7.18)	9.16 (6.84)	9.73 (7.87)	15.11 (7.32)	11.96 (7.41)	12.59 (8.02)	15.11 (7.32)	11.96 (7.41)	12.59 (8.02)	12.67 (1,173)***	5.83 (1,164)*
Motivation for Work	23.31 (10.63)	31.25 (11.58)	30.66 (12.95)	21.22 (10.34)	27.33 (11.58)	24.52 (12.5)	21.22 (10.34)	27.33 (11.58)	24.52 (12.5)	3.83 (1,179)*	5.86 (1,170)*
Life Satisfaction	3.16 (1.29)	3.74 (1.33)	3.77 (1.55)	3.00 (1.34)	3.29 (1.38)	3.27 (1.53)	3.00 (1.34)	3.29 (1.38)	3.27 (1.53)	4.71 (1,184)*	0.99 (1,176)

*p < 0.05, **p < 0.01, ***p < 0.001 # See Research Design, Figure 7.2

Job-Seeking Activity

Five categories of job-search behaviour were analysed

- 1 seeking information about an advertised job (or requesting application forms)
- 2 speculatively calling/writing to potential employers
- 3 applying for a job
- 4 attending a job interview
- 5 following-up an application or interview, or contacting people for networking purposes

In addition, the total number of hours spent in job-seeking activities per week was examined

The assumptions underlying analysis of covariance were tested for each of the job-seeking behaviour variables. Significant interactions between group and pre-test were found in the following during the course - job information, speculative calls, follow-up contacts, number of hours job-seeking, and post-course - job applications. In these cases, analysis of covariance could not be used to test for group differences. The data were plotted, and t-tests on the change scores were computed instead.

The results for job-seeking behaviour during the course indicated that there were no significant differences between the Managing Resilience and control groups on any of the five categories of behaviour, nor in the number of hours spent job-seeking per week (Tables 7 4a, 7 4b). Plots of the data where interactions were found between group and pre-test, however, indicated that, in each case, the MR programme was more effective than the control programme for subjects with lower pre-test scores on the different job-seeking activities (specifically, those who sought information about advertised jobs three times or less per week, made 15 or less speculative calls per week, made follow-up applications or networking less than twice a week, or spent eight hours or less job-seeking per week). However, the group difference was only significant for the number of hours spent job-seeking per week ($F_{1,61} = 14.17, p < .001$).

Comparison of subjects' job-seeking activity in the twelve weeks after the course again indicated that there were no significant differences between groups (Tables 7 4a, 7 4b). By

this stage, the data pertained only to those who had not gained employment. Only in the case of one variable, job applications, was there an interaction between group and covariate, and the data plot showed that the MR course was more effective than the control course for subjects who, at pre-test, made four or less job applications per week, although the group difference was still not significant. However, for the subjects who were devoting less than eight hours per week to their job-search pre-course, the significant group differences that occurred during the course were maintained in the follow-up period ($F_{1,41} = 5.17, p < .03$)

Table 7 4a Job-Seeking Activity Means and Standard Deviations

	MANAGING RESILIENCE GROUP			CONTROL GROUP		
	mean (s.d.)			mean (s.d.)		
	Pre-course	During Course	Post-course	Pre-course	During Course	Post-Course
Job Information	1.25 (2.4) *	1.28 (2.56)	1.61 (4.23) *	0.99 (2.79)	0.94 (2.29)	0.89 (2.58)
Speculative Calls	2.61 (6.52) *	1.31 (3.66)	1.69 (6.26) *	0.74 (2.72)	0.88 (3.22)	0.60 (1.66)
Job Applications	1.63 (2.74) *	1.45 (2.06)	0.91 (1.76) *	1.34 (3.42)	1.28 (3.05)	0.87 (2.37)
Interviews	0.17 (0.33) *	0.35 (0.48)	0.35 (0.48) *	0.25 (0.48)	0.27 (0.41)	0.33 (0.83)
Follow-up/Contacts	3.08 (5.28) *	2.44 (4.25)	2.27 (3.81) *	1.2 (2.92)	1.17 (2.68)	0.96 (2.86)
Total Hours	15.02 (10.36) *	18.01 (9.29)	15.41 (10.07) *	12.18 (10.32)	14.89 (9.98)	12.83 (9.68)

Table 7 4b Job-Seeking Activity Group Differences

VARIABLE	GROUP DIFFERENCES	
	F / t (df1,df2)	
	Pre-Course Vs During Course	Pre-Course Vs Post-Course
Job Information	t=0.48 (1,135)	* F=1.2 (1,130)
Speculative Calls	t=-1.81 (1,105)	F=0.15 (1,130)
Job Applications	F=0.01 (1,173)	t=-0.95 (1,125)
Interviews	F=3.27 (1,173)	* F=0.2 (1,130)
Follow-up/Contacts	* t=-1.76 (1,92)	F=0.07 (1,130)
Total Hours	t=0.08 (1,128)	F=0.42 (1,130)

*p<.05, **p<.01, ***p<.001

Job-Finding (and other 'Starts')

By four months after the completion of the courses, 38 (34%) of the Managing Resilience participants had found full-time jobs. The equivalent figure for the control group was 13 (13%, chi-square = 11.87, df = 1, $p < 0.02$). This represents almost a three-fold difference job-finding between the two groups. Including part-time and temporary employment, the figures were MR 55 (49%), control 27 (28%, chi-square = 9.87, df = 1, $p < 0.02$).

Table 7.5 shows the full range of job-search outcomes from the two programmes. Results are expressed in terms of self-reported 'starts'. The data were compiled with, and verified by, Joyce Henderson, Senior Occupational Psychologist, London & South East Region, Employment Service.

Table 7.5 Job-Seeking Outcomes

'STARTS'	MR DELEGATES	CONTROL DELEGATES	WHOLE SAMPLE
Job - full-time	38 (34%)	13 (13%)	51 (24%)
Job - part-time	7 (6%)	4 (4%)	11 (5%)
Contract/temporary work	10 (9%)	10 (10%)	20 (10%)
Work placement/Training for Work	10 (9%)	6 (6%)	16 (8%)
Further education - full-time	6 (5%)	7 (7%)	13 (6%)
Further education - part-time	4 (4%)	1 (1%)	5 (2%)
Voluntary work/Community Action	4 (4%)	4 (4%)	9 (4%)
Actively setting up own business	5 (4%)	6 (6%)	10 (5%)
Unemployed	28 (25%)	46 (47%)	74 (35%)
Total	112*	97	209

* The employment status of 2 MR clients is unknown

The Managing Resilience programme was able to assist just under 50% of the group into re-employment. Many of these had had numerous unsuccessful attempts to find work previously. Another 22% of the MR delegates moved into activities likely to enhance their job prospects (work placements, further education, voluntary work), with a further 4% actively setting up their own businesses. Thus in total, 75% of the MR participants

were in work or in programmes to enhance their job prospects within four months of the completion of the courses

However, it must be noted, that although the MR programme was significantly more successful than the control programme in assisting long-term unemployed people into employment, it was no more no more effective than the latter in transferring delegates who were unable to find work into alternative activities to enhance their job-finding prospects

Profile of Subjects who Gained Full-Time Work

The MR participants who gained full-time jobs had been unemployed longer than their control group counterparts (23 mths cf. 18 mths), they were slightly older (44 yrs cf. 43 yrs), and had a higher proportion of males (90% cf. 77%) This suggests that the programme is particularly effective for individuals who are typically considered to be “difficult to help”

The Effect of Job-Finding on Psychological Outcomes at Follow-up

By follow-up, 24% of the total sample (34% MR Group, 13% Control Group) had obtained full-time jobs (Table 7 5) The psychological outcomes at this measurement point, therefore, need to be interpreted with caution, as studies have shown that return to employment has a considerable psychological impact on individuals (Warr & Jackson, 1985, Payne, 1988) To determine if the psychological effects at follow-up were confounded by subjects’ job-finding, analysis of covariance was performed, with group (MR/Control) and job (yes/no) as independent variables, the psychological scores at follow-up as the dependent variables, and the pre-test psychological scores as covariates The results indicated that the programme effect at follow-up was, in fact, confounded by subjects gaining employment This was the case for all the psychological variables except positive and negative attributional style (Table 7 6) Thus, for these variables, the differences between the MR and Control groups were explained by differences in subjects’ job-finding However, since the psychological changes preceded job-finding, it can be concluded that the MR training did indeed positively affect psychological variables associated with job-seeking

To attempt to ascertain the degree to which the psychological outcomes at follow-up were influenced by subjects' job-finding, delegates who had found full-time employment were excluded from the data set, and the statistical analyses were redone on the remaining non-employed subjects

Table 7 6 Effect of Job-Finding on Psychological Outcomes at Follow-up

	MAIN EFFECT OF JOB F (df1, df2)	MAIN EFFECT OF GROUP F (df1, df2)	GROUP /JOB INTERACTION F (df1, df2)
Positive Attributional Style	1.78 (1,152)	3.23 (1,152)#	0.72 (1,152)
Negative Attributional Style	0.34 (1,161)	7.36 (1,161)**	0.09 (1,161)
Self-Esteem	7.42 (1,176)**	0.46 (1,176)	0.49 (1,176)
Life Satisfaction	25.39 (1,174)***	0.01 (1,174)	0.15 (1,174)
Motivation for Work	27.56 (1,168)***	1.49 (1,168)	2.13 (1,168)
Job-Seeking Self-Efficacy	4.25 (1,173)*	3.07 (1,173)	0.02 (1,173)
Psychological Strain	7.83 (1,164)**	1.82 (1,164)	0.74 (1,164)
Chronic Psychological Strain	15.53 (1,162)***	2.36 (1,162)	0.06 (1,162)

Once the degree of freedom allocated to the interaction is no longer used, the main effect of group becomes significant for this variable

* $p < .05$, ** $p < .01$, *** $p < .001$

Not surprisingly, the psychological outcomes at post-test were reduced for this subgroup of people (Table 7 7), and the means were even lower at follow-up, indicating an attrition of effect. However, the results of analysis of covariance, again using pre-test scores as covariates, indicated that even for subjects who failed to find employment, the Managing Resilience course effects were significantly greater at post-test than the Social Support course outcomes for positive and negative attributional style, job-seeking self-efficacy, motivation for work and chronic psychological strain. By the three-month follow-up point, however, the significant differences between the two groups had dissipated in all but positive and negative attributional style (Table 7 7).

This confirms that the confound between psychological outcomes and job-finding was a real one. The results also suggest that, if employment is not gained immediately after the MR course is completed, regular (perhaps monthly) refresher sessions are needed for

Table 7 7 Psychological Outcomes Subjects Remaining Unemployed

	MANAGING RESILIENCE GROUP mean (s.d.)				CONTROL GROUP mean (s.d.)				GROUP DIFFERENCES F (d.f.) (p2)	
	Pre-course (1) #	Post-course (2) #	Follow-up (3) #	Pre-course (1) #	Post-course (2) #	Follow-up (3) #	Pre- Vs Course	Post- Vs Course	Pre-course Follow-up	Vs
Attributional Style (Positive)	15 49 (1 78)	16 34 (1 93)	15 99 (1 79)	15 07 (2 2)	15 54 (2 16)	15 17 (2 32)	7 2 (1,123)**	4 7 (1,118)**		
Attributional Style (Negative)	13 39 (2 23)	11 64 (2 73)	12 53 (3 1)	13 44 (2 28)	13 16 (2 43)	13 77 (2 17)	13 73 (1,126)***	5 98 (1,125)*		
Self-Esteem	3 72 (0 98)	4 21 (0 92)	4 01 (1 04)	3 46 (1 19)	3 87 (1 05)	3 7 (1 29)	1 45 (1,140)	0 01 (1,139)		
Job-seeking Self- Efficacy	3 35 (0 62)	3 62 (0 6)	3 58 (0 67)	3 24 (0 71)	3 39 (0 62)	3 38 (0 65)	4 96 (1,138)*	1 97 (1,136)		
General Self-Efficacy	63 83 (10 35)	64 19 (9 96)	62 92 (11 02)	60 39 (12 18)	61 37 (10 89)	60 88 (10 46)	0 07 (1,117)	0 45 (1,124)		
Psychological Strain (GHQ)	9 57 (7 9)	3 61 (5 71)	6 27 (8)	9 32 (8 67)	5 27 (7 19)	6 75 (7 89)	2 36 (1,125)	0 62 (1,127)		
Chronic Strain (CGHQ)	15 03 (7 58)	9 55 (6 98)	11 53 (8 29)	14 89 (7 47)	12 02 (7 67)	13 01 (7 79)	7 92 (1,126)**	1 79 (1,126)		
Motivation for Work	23 15 (10 91)	30 79 (11 33)	27 97 (13 45)	21 45 (10 45)	26 96 (11 49)	23 49 (12 08)	3 85 (1,135)*	3 13 (1,134)		
Life Satisfaction	3 11 (1 24)	3 62 (1 39)	3 37 (1 49)	2 95 (1 38)	2 23 (1 37)	3 14 (1 52)	2 49 (1,138)	0 00 (1,139)		

*p<0.05, **p<0.01, ***p<0.001

See Figure 7 2 Research Design

those who are still without work. The strain of repeated job application and rejection, as well as the financial, interpersonal and other difficulties often associated with long-term unemployment are, it seems, just too pernicious for the course effects to persist once weekly contact has ceased. Certainly this view was expressed by many of the delegates who requested regular 'top-up' seminars once the course had finished.

Organisational Differences

Subjects for this study were drawn from two sources, the Government's Employment Service and a large outplacement consultancy company, Sanders & Sidney PLC. It could be argued that the organisations might exert an effect on the programme outcomes, particularly as subjects from the outplacement consultancy received additional support and services. The impact of this organisational factor on programme outcomes therefore needed to be measured.

The effect of organisation was assessed for each of the outcome variables, using analysis of covariance with pre-test scores as the covariates, and group and organisation as the independent variables. If the group x organisation interaction was not significant, it was dropped from the equation and a second analysis of covariance was performed to consider the main effects of organisation and group only. The results, displayed in Table 7.8, indicated that there were no effects of organisation on any of the outcomes measured.

Table 7.8 Organisational Effects

	GROUP X ORGANISATION INTERACTION F (df1,df2)	MAIN EFFECT OF ORGANISATION F (df1,df2)
Professional Self-Esteem	0.29 (1,185)	0.41 (1,186)
Life Satisfaction	0.93 (1,182)	0.91 (1,183)
Positive Attributional Style	0.08 (1,167)	2.57 (1,168)
Negative Attributional Style	0.14 (1,167)	0.92 (1,168)
Chronic Psychological Strain	3.32 (1,171)	2.34 (1,172)
Motivation for Work	0.05 (1,177)	1.97 (1,178)
Job-Seeking Self-Efficacy	0.67 (1,181)	0.13 (1,182)

*p<.05, **p<.01, ***p<.001

Effect of Non-Completers on Outcomes

Forty-five of the total 248 subjects (25 experimental, 20 control) left the programme during the courses. Fourteen of this group left because they got jobs or places in training courses (5 experimental, 9 control). The main exit points for the remainder were after the first or third sessions.

The pre-test means of the 31 subjects who left the programme without jobs were examined, to ascertain whether there were any differences between the experimental and control groups which might affect the findings of the study, and further to compare the data with that of the subjects who completed the programme (Table 7.9).

Table 7.9 Pre-test Means and SDs of Dropouts and Completers

	DROPOUTS MR Group (n=20)	COMPLETERS MR Group (n=110)	DROPOUTS Control Group (n=11)	COMPLETERS Control Group (n=93)
Mental Strain (GHQ)	11.12 (8.76)	10.05 (7.8)	7.17 (5.62)	9.65 (8.5)
Positive Attributional Style	15.44 (2.21)	15.55 (1.85)	16.29 (1.56)	15.02 (2.17)
Negative Attributional Style	13.82 (2.69)	13.4 (2.13)	12.53 (1.58)	13.5 (2.19)
Job-Seeking Self-Efficacy	3.23 (0.77)	3.35 (0.62)	3.44 (0.45)	3.27 (0.69)
Professional Self- Esteem	3.25 (1.15)	3.73 (1.06)	4.29 (0.83)	3.49 (1.15)
Life Satisfaction	2.71 (1.19)	3.17 (1.29)	2.9 (1.32)	2.98 (1.34)
Motivation for Work	19.33 (11.38)	23.29 (10.69)	28.81 (8.83)	20.66 (10.47)

Although the MR group dropouts were more psychologically strained, had less favourable attributional styles, lower job-seeking self-efficacy, professional self-esteem, life satisfaction and motivation for work than their control group counterparts, the results of three-way analyses of variance (dropout status, MR/control group, dependent variable) indicated that, for all variables, the main effects of group and dropout status were not significant, and only for self-esteem and motivation for work was the group x dropout status interaction significant (Table 7.10).

Table 7 10 *Effect of Dropouts on Psychological Outcomes*

	MAIN EFFECT OF GROUP	MAIN EFFECT OF DROPOUT STATUS	GROUP X DROPOUT INTERACTION
	F (df1,df2)	F (df1,df2)	F (df1,df2)
Psychological Strain (GHQ)	0.59 (1,213)	0.79 (1,213)	1.17 (1,213)
Positive Attributional Style	1.66 (1,203)	1.29 (1,203)	2.64 (1,203)
Negative Attributional Style	0.67 (1,207)	0.12 (1,207)	2.32 (1,207)
Job-Seeking Self-Efficacy	0.22 (1,222)	0.00 (1,222)	1.14 (1,222)
Professional Self-Esteem	0.28 (1,225)	0.03 (1,225)	8.66 (1,222)***
Life Satisfaction	0.64 (1,227)	1.56 (1,227)	0.55 (1,227)
Motivation for Work	0.61 (1,217)	0.34 (1,217)	7.87 (1,217)***

*p<.05, **p<.01, ***p<.001

These analyses indicate that the psychological characteristics of subjects who left the programme without jobs were broadly similar to those who completed the programme in both groups. However, caution must be exercised over the significant interactions found for professional self-esteem and motivation for work, which indicate that the control group dropouts had significantly higher self-esteem and motivation for work than their MR group counterparts. Fortunately, analysis of covariance, which was used to test for group differences resulting from the intervention, matches the pre- and post-test data for each subject, and excludes subjects for whom data are missing. Thus, data for the programme dropouts were not included in the tests for group differences.

Nevertheless, to ensure that the pre-test scores of completers were equivalent for the MR and control group (i.e. that the benefits of random allocation had not been lost), analyses of variance were performed on the pre-test data of the completers. The results (Table 7 11) indicated that there were no significant pre-test differences between the two groups on any of the psychological variables. Furthermore, the completers in the two groups were equivalent in age (average 43 years in both groups), length of unemployment (MR group 25.6 months, Control group 23.4 months), and sex (82% male in both groups).

Table 7 11 Completers Pre-test Group Differences

VARIABLE	GROUP DIFFERENCES
	F (df1,df2)
Psychological Strain (GHQ)	0.24 (1,197)
Positive Attributional Style	3.70 (1,188)
Negative Attributional Style	0.01 (1,192)
Job-Seeking Self-Efficacy	0.58 (1,205)
Professional Self-Esteem	1.90 (1,207)
Motivation for Work	2.01 (1,201)
Life Satisfaction	0.8 (1,208)

*p< .05, **p<.01, ***p< .001

3) Testing the Attributional Intervention Model

In the previous study, preliminary support was provided for the Attributional Intervention Model in terms of its prediction that attributional change is the main outcome of the MR programme, and that the cognitive and affective outcomes are mediated by the changes in attributional style. A further test of the Attributional Intervention Model was undertaken in this study. As a first step, path analysis, using Structural Equation Modelling (Dunn, Everitt & Pickles, 1993), was attempted, but the sample size in the Managing Resilience group was too small for effective use of this technique. An alternative, although less powerful, analysis was therefore employed: the model was tested in segments using analysis of covariance or regression analysis.

a) Did Post-Test Attributional Style Mediate the Psychological Outcomes

Analyses of covariance, with each of the five post-test psychological scores taken in turn as the dependent variable, and, as covariates, the corresponding pre-test score, together with post-test positive and negative attributional style, were performed to ascertain the effect of attributional style on the outcome psychological variables. In each case, the significant difference between groups that existed at post-test (Table 7.3) disappeared when positive and negative attributional style were covaried out (Table 7.12). Consistent with the findings of the previous study, this suggests that the main group differences were in attributional style, and that the other psychological differences were explained by the differences in attributional style.

Table 7 12 Group Differences in Post-test Psychological Variables with Post-test Attributional Style Covaried Out

<i>VARIABLE</i>	<i>F (df1,df2)</i>
<i>Professional Self-Esteem</i>	1.39 (1,175)
<i>Life Satisfaction</i>	2.95 (1,172)
<i>Motivation for Work</i>	0.15 (1,169)
<i>Job-Seeking Self-Efficacy</i>	3.37 (1,172)
<i>Psychological Strain</i>	1.13 (1,160)

*p<.05, **p<.01, ***p<.001

To check that this mediating effect was unique to attributional style, and that the reverse was not the case (i.e. the post-test psychological variables accounted for the group differences in attributional style), a second series of analyses of covariance were performed, this time with post-test attributional style¹³ as the dependent variable, and pre-test attributional style, pre-test psychological strain and post-test psychological strain as the covariates. The significant post-test difference in attributional style between groups remained. This pattern of results persisted when the analyses were repeated for each of the psychological variables (Table 7 13), thereby adding further support to the proposition that the post-test psychological differences between groups were explained by differences in attributional style.

Table 7 13 Group Differences in Post-test Attributional Style with Post-test Psychological Variables Covaried Out

	POSITIVE ATTRIBUTIONAL STYLE	NEGATIVE ATTRIBUTIONAL STYLE
	<i>F (df1,df2)</i>	<i>F (df1,df2)</i>
Professional Self-Esteem	5.22 (1,166)*	10.81 (1,167)***
Life Satisfaction	6.69 (1,165)**	11.37 (1,165)***
Motivation for Work	8.03 (1,166)**	10.86 (1,166)***
Job-Seeking Self-Efficacy	7.48 (1,166)**	10.06 (1,166)**
Psychological Strain	8.04 (1,162)**	8.04 (1,166)**

*p<.05, **p<.01, ***p<.001

¹³ The analyses were performed separately for positive and negative attributional style

These results suggest that attributional style (both positive and negative) acts as a mediator of change to the psychological variables, and that the reverse is not the case (the psychological variables do not mediate the attributional outcomes) As the study was not longitudinal, it cannot be inferred that changes in attributional style caused the psychological differences, but the results are consistent with causality, and they provide some support for the first segment of the model.

b) What was the Contribution of the Psychological Outcomes to Job-Seeking Activity?

To attempt an answer this question, regression analyses were performed, with the five psychological characteristics as independent variables and, in turn, each of the six job-seeking variables as the dependent variables The analyses were conducted on the data from the Managing Resilience group only

The results (Table 7 14) indicate that 31% of the variance in the activity of seeking information about a job vacancy was explained by subjects' post-test professional self-esteem, life satisfaction, job-seeking self-efficacy, motivation for work and psychological strain The effects of GHQ, self-esteem and job-seeking self-efficacy, having adjusted for all the other variables, were highly significant ($B= 3$, $se(B)= 08$, $p< 001$, $B=2.45$, $se(B)= .78$, $p< 003$, $B=-2.4$, $se(B)= .96$, $p<.02$ respectively). As far as the other job-seeking activities were concerned, a much smaller proportion of each of the variances was explained by the psychological variables

Table 7 14 Impact of Psychological Variables on Job-Seeking Activities

VARIABLE	MULTIPLE R	R SQUARE	STANDARD ERROR
Job Information	.55	.31	3.46
Speculative Calls	.24	.06	5.95
Job Applications	.22	.05	1.72
Job Interviews	.28	.08	.47
Contacts	.29	.08	3.63
Hours Job-Seeking	.24	.06	10.06

When positive and negative attributional style were added into the regression equation with the other five psychological variables, the R^2 increased only marginally for each of the job-seeking activities (Table 7 15), indicating that very little more of the variance in job-seeking activities other than that explained by the psychological variables was explained by positive and negative attributional style. Furthermore, the individual effects of positive and negative attributional style were not significant in each of the six job-seeking activities. This supports the previous results which indicated that the effect of attributional style is transmitted via the other psychological variables, and not directly on job-seeking activity.

Table 7 15 Impact of Attributional Style and Other Psychological Variables on Job-Seeking Activities

VARIABLE	MULTIPLE R	R-SQUARE	STANDARD ERROR
Job Information	57	33	3 51
Speculative Calls	36	12	5 93
Job Application	30	09	1 70
Job Interview	30	09	0 47
Contacts	34	11	3 67
Hours Job-Seeking	25	06	9 96

C. What Variables Explained Job-Finding?

To ascertain whether the particular job-seeking activities measured in this study contributed to job-finding, as predicted by the model, logistic regression analyses were performed with the six job-seeking activities as independent variables, and whether subjects had secured a full-time job (coded as a dichotomous variable) as the dependent variable. The results (Table 7 16) indicated that number of interviews, contacts, hours job-seeking and speculative calls all explained job-finding, with the strongest prediction accruing from the number of interviews attended. This is not an earth-shattering finding, given the strong preference by UK employers for interviews rather than other recruitment techniques, but it does provide support for the model.

Table 7 16 Factors Contributing to Job-Finding

VARIABLE	B	S.E.	WALD	df	Sig.	R	Exp(B) #
Job Information	.05	.14	11	1	.74	.00	1.04
Speculative Calls	.15	.1	2.58	1	.11	.08	1.17
Job Applications	.05	.24	.04	1	.85	.00	1.05
Job Interviews	.401	.135	8.71	1	.00	.29	54.73
Contacts	.39	.15	6.58	1	.01	.24	1.48
Hours	-.17	.07	5.51	1	.02	-.21	.85
Constant	-1.08	.62	3.05	1	.08		

Odds Ratio: the increase in odds of getting a job per unit increase in the explanatory variable (1=no effect, <1=decreasing chances, >1=increasing chances)

Lastly, to determine whether positive or negative attributional style or any of the post-test psychological variables had a direct effect on job-finding within the MR group, logistic regression was performed with all of the post-test psychological variables and attributional style as independent variables, and full-time job as the dependent variable. The result indicated that only one variable, post-test professional self-esteem, predicted job-finding (Wald chi-square = 4.91, $df=1$, $p=.03$). However, it predicted a mere 3% of the variance in job-finding. Thus, consistent with the model on which this research is based, it appears that subjects' post-test positive and negative attributional style do not predict success in gaining a job. Although the effect size is greater for these two variables than all other dependent variables, and the difference between groups in positive and negative attributional style persisted strongly until the three month follow-up point, even for the subjects who did not get full-time jobs, attributional style exerted its influence on job-finding through other psychological and behavioural variables.

Together these results provide support for the model, and allow the conclusion to be drawn that attributional change is indeed an active ingredient in the MR programme. Further research is needed, however, to be able to claim that it is the active ingredient.

4) Prognostic Indicators: Managing Resilience Programme

Hartman (1979) notes that, in searching for variables that predict psychotherapy outcome, few studies consider the whole spectrum of variables, from client and therapist characteristics through process variables to outcome. In this study, the differential effect of trainer on outcome was controlled through the research design. The type of employment organisation, another possible prognostic indicator, was assessed above, and shown to exert no impact on any of the outcome variables (Table 7.8). To ascertain whether success in finding a full-time job could be predicted from the subjects' demographic data (age, gender, length of time unemployed), and from whether they had experienced any particularly adverse circumstances (legal, financial, relationship, family etc.) prior to the programme, logistic regression analysis was performed. None of these variables predicted success in gaining a job (Table 7.17).

Table 7.17 Client Characteristics

	Wald Chi-Square	df	Significance	R
Age	13	1	.72	.00
Gender	15	1	.69	.00
Time Unemployed	74	1	.39	.00
Adversity	77	1	.39	.00

Moreover, none of the demographic variables, other than the presence of adverse circumstances, predicted subjects' psychological well-being at post-test (as measured by the GHQ). Presence of adverse circumstances at pre-test predicted only 5% of the variance in post-test GHQ scores (Estimated Regression Coefficient = 3.54, S.E. = 1.11).

To ascertain which psychological variables predicted success in gaining a job within the MR group, logistic regression was performed with all of the pre-test psychological variables (including positive and negative attributional style) as independent variables, and whether subjects had secured a full-time job (coded as a dichotomous variable) as the dependent variable. None of the pre-test psychological variables predicted job-finding (Table 7.18).

Table 7 18 Pre-test Psychological Predictors of Full-time Employment

	B	S.E.	WALD	d.f.	Sig.	R	Exp(B) #
Self-Esteem	24	28	74	1	39	00	1 28
Life Satisfaction	28	2	1 86	1	17	00	1 32
Attributional Style (Positive)	13	14	87	1	35	00	1 14
Attributional Style (Negative)	00	12	00	1	99	00	1 00
Motivation for Work	-0 03	02	1 24	1	26	00	97
Job-seeking Self-Efficacy	-0 32	44	55	1	46	00	72
Psychological Strain	02	03	55	1	46	00	1 02
Constant	-3 08	2 69	1 32	1	25		

Odds Ratio the increase in odds of getting a job per unit increase in the explanatory variable (1=no effect, <1=decreasing chances, >1=increases chances)

A further regression analysis was conducted to ascertain whether there were any pre-test predictors of psychological strain at post-test. The results, presented in Table 17 19, indicated that none of the pre-test psychological variables, other than psychological strain¹⁴, predicted outcome of the MR programme in terms of subjects' psychological strain.

Table 17 19 Pre-test Predictors of Post-test Psychological Strain

	B	SE B	Beta	t	Significance
Psychological Strain	5	09	64	5 72	00
Motivation for Work	- 03	06	05	57	57
Attributional Style -Positive	26	35	08	73	47
Life Satisfaction	62	52	13	1 2	23
Attributional Style -Negative	- 09	35	- 03	- 26	79
Self-Esteem	76	7	13	1 08	28
Job-Seeking Self-Efficacy	- 97	1 23	- 09	- 79	43
Constant	-4 58	7 13		- 64	52

¹⁴ Pre-test psychological strain explained 33% of the variance in post-test psychological strain

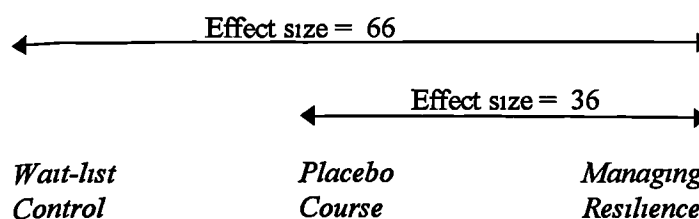
Thus, it is not possible to forecast the type of subject likely to gain maximum benefit from the MR programme according to their demographic or pre-test psychological profile. Alternatively, it might be concluded that the MR course is universally beneficial for a wide range of long-term unemployed people.

5) **Managing Resilience Programme: Unique Ingredients and Non-Specific Factors**

The size of effect for the psychological outcomes in this study ranged from 2 to 75, with a mean effect size of 36. This is equivalent to the mean effect size found by Dush et al. (1983) in their meta-analysis of 246 studies employing group cognitive therapy¹⁵. It needs to be borne in mind, however, that the latter studies took place in clinical settings, whereas the current project was a randomised field experiment, in which the effect sizes could be expected to be smaller.

From the mean effect size in this study (calculated against a placebo control intervention), and the mean effect size in the previous study (calculated in comparison with a no-treatment control), a rough idea can be gained of the separate contribution of the unique ingredients of the MR course, and the non-specific effects. The mean effect size in the previous study (MR course/ wait-list control) was 66. The mean effect size in this study (MR course/control course) was 36. Thus, roughly speaking, the non-specific effects of the programme such as Hawthorne Effect, group support and trainer effect, accounted for an effect size of 3, and the unique ingredients of the MR programme over and above such non-specific factors brought about an effect size of 36.

Figure 7.4 Effect Sizes



¹⁵ Dush et al. (1983) calculated these effect sizes using placebo interventions as controls, rather than the standard no-treatment controls. Their method, therefore, is comparable with that of the present study.

Clearly, the partitioning of effect needs to be performed in a more rigorous fashion. However, these preliminary results, together with the empirically-tested group outcomes of this and the previous study, suggest a substantial effect of the unique aspects of the Managing Resilience programme.

7.7 DISCUSSION AND CONCLUSIONS

This randomised field experiment was designed to evaluate the efficacy of an attributional training programme based on cognitive therapy principles, controlling for the effects of non-specific factors. Consistent with the diathesis-stress attributional model on which the intervention was based, long-term unemployed professionals were recruited to explore whether the programme had any significant impact on their psychological state, their job-seeking behaviour, and ultimately their success in finding a job.

As hypothesised, the results indicated that significantly greater effects accrued from the MR programme than from the control programme. The MR programme brought about substantial improvements in subjects' attributional style, which in turn reduced some of the negative psychological effects of unemployment (lowered self-esteem, self-efficacy, motivation to find work, life satisfaction and increased psychological strain). In particular, the significant reduction in the proportion of psychiatric "caseness" in the MR group, as measured by the General Health Questionnaire (from 59% of the sample to 21%) was equivalent to a reduction in psychiatric caseness from that typical of unemployed samples to the normal prevalence within a sample of employed people (see Warr, 1984). Thus, the programme was able to substantially attenuate the psychological burden of unemployment, giving delegates an even chance again (psychologically) of gaining employment.

Furthermore, the psychological improvements translated into positive job-seeking outcomes. By 4 months after training, 55 (49%) of the Managing Resilience delegates had found jobs (full-time, part-time or short-term). The comparable figure for the control group was 27 (28%), which is equivalent to that of the Open Learning Credits

programme (27%), the most closely-related government programme. Thus, the MR programme resulted in a re-employment rate that was almost double that of the Open Learning Programme, yet the latter is considerably longer than the MR programme, and much more expensive. Other Department of Employment programmes for long-term unemployed people, such as the JobPlan and Restart courses, result in 4% and 5% of participants (respectively) gaining short-term or full-time jobs, substantially less than the MR programme, or even the control programme. (It should be noted that, although the impact of the Social Support control programme was not as marked as that of the MR programme, it nevertheless, as was hypothesised, had a beneficial effect: psychological improvements occurred and 27% of subjects found work.)

The outcomes pertaining to full-time jobs were even more positive. Thirty-eight (34%) of the MR group, compared with 13 (13%) of the control group found full-time jobs. This represents almost a three-fold difference. Thus, the MR programme brought about substantial psychological and economic benefits for the individuals concerned. There were benefits on a societal level as well. Each unemployed professional person who gains full-time employment saves the welfare budget approximately £14,700 p a (Dept of Social Security, personal communication). This figure includes Income Support and Housing Benefit, but does not include Council Tax benefit, free dental treatment, free pharmaceutical prescriptions and free school meals. It is therefore likely to be an underestimation. Furthermore, each unemployed professional person who gains full-time employment generates, at a minimum, £5000 p a in tax paid. In this study, thirty-eight of the Managing Resilience subjects found full-time work, which translates into a welfare saving of more than £550,000 per year, and an additional £190,000 p a in tax paid.

Interestingly, despite these strong job-finding outcomes, subjects' job-seeking behaviour did not substantially change. The only significant difference between groups was in the hours spent job-seeking by the sub-group of participants who, prior to the course, devoted very little time to their job-search, as a result of the programme, they significantly increased the number of hours spent job-seeking per week, both during the course and in the follow-up period. However, there were no significant differences between groups on any of the five job-seeking activities. Three explanations are possible.

- 1 The psychological improvements wrought by the Managing Resilience programme were not strong enough to translate into behavioural outcomes
- 2 Although there was no difference in the *quantity* of job-seeking activity, there may have been some improvement in its *quality*
- 3 The method employed to monitor job-seeking activity was not effective

On the balance of evidence, the second and third explanations are the more likely. Significant improvements in job-finding occurred within the Managing Resilience group which suggests that the subjects' job-seeking activity also improved. Thus, the measure of job-seeking activity employed was either assessing the wrong thing (quantity rather than quality), or it was not precise enough to pick up changes in subjects' job-seeking activity. Perhaps if subjects had been required to record the outcome of each of their job-search activities, a more valid picture may have been gained. Alternatively, perusal of the pre-course means suggests that it is possible that subjects were operating at "ceiling" before the course in terms of the amount of job-seeking they were doing, and whilst the quantity of job-seeking was unable to change, its quality could. Nevertheless, the effect found in this study is not an isolated one. Caplan et al. (1989) and Spera et al. (1994) also found that subjects in their experimental conditions did not undertake more job-seeking activity than the controls, yet they were significantly more likely to find employment. Spera et al. (1994) concluded that, although a certain amount of job-seeking activity is necessary to gain employment, individuals who participated in their programme did a qualitatively better job-search. It is this qualitative difference, they suggested, which affects success in finding employment. Thus, it is possible that, had a measure of job-search quality been included in the present study, such as outplacement consultants' ratings, or subjects' recording the outcome of each of their job-search activities (which would also act as both a validity and quality check), the predicted improvement in job-search activity resulting from the MR programme may have been seen. This is an area for future research.

Nevertheless, the findings indicate a clear message to both job-seekers and employment organisations. The job-search process needs to address the psychological issues of job-seeking, in addition to the usual focus on skill-development. An attributional change intervention, based on cognitive-behavioural therapy, can address this need. The results indicate that the programme had a potentially equal effect for all subjects, irrespective of

age, length of time unemployed, gender, and their pre-intervention psychological scores. This is surprising, given that older participants are typically more difficult to help. For example, in the clinical field, Lewinsohn and his team found that older people on their Coping with Depression course had significantly less successful treatment outcomes than younger participants, from which they concluded that their intervention needed to be specifically modified to effectively help older clients (Steinmetz et al. 1983). The age problem is even more acute among the unemployed, yet it did not occur with the Managing Resilience course. Age was not a significant predictor of outcome, and moreover, the MR subjects who found jobs were, on average, older than their control group counterparts. The programme clearly is beneficial for a wide range of unemployed people.

The results of this study provide additional information about the MR intervention to that from the previous evaluation of the programme. Not only has the effect of the intervention been demonstrated, it has been shown to have a significant impact over and above the non-specific effects of an alternative intervention. The Hawthorne Effect or placebo effect can be ruled out. Further, due to the research design used, one can conclude that the psychological effects were not merely due to “spontaneous remission” of symptoms, or regression to the mean.

As far as the research model is concerned, the results confirm the central role played by attributional style in producing the psychological changes at post-test. The contribution of the psychological variables to job-seeking activity is also supported (albeit to a lesser degree), but the results suggest that variables additional to those in the model are involved. These variables could be impacting upon job-seeking activity directly, or through other psychological variables. Such factors as negative affectivity, achievement striving and self-control are possibilities, although they clearly are the subject of another study. Lastly, the analyses indicated that, consistent with the model, the job-seeking activities contributed to job-finding, but that the psychological variables at post-test did not. Other variables such as job-seeking skills (e.g. ability to write a curriculum vitae, to perform well in an interview etc.) as well as labour market conditions also clearly influence job-finding, although their impact was not assessed in this study.

Thus, preliminary support has been obtained for the research model. However, it must be recognised that the study was set up to evaluate the outcomes of an intervention, not specifically to test the model. The data, therefore, are not ideally suited to test the model, which, strictly speaking, requires a longitudinal design. Thus whilst these analyses indicate that the data are consistent with the model, firmer conclusions cannot be made.

Nevertheless, the study does permit conclusions about the programme. Managing Resilience, a programme designed to bring about attributional change, has been shown to be more effective than a control programme of equal length and structure, with benefits not only to individuals, but to society as a whole.

CORPORATE ATTRIBUTION STYLE

SOME PRELIMINARY THOUGHTS

“Culture represents the ‘water’ in which the organisational fish swim ”

(McLean & Marshall, 1991)

It has now been demonstrated that an attributional change programme can be successfully applied to the occupational field. The Managing Resilience programme, an attributional retraining programme designed for organisational contexts, improved psychological health, substantially increased job-finding among long-term unemployed people, and reduced labour turnover among insurance salespeople. Further, it was shown to exert a significant impact over and above the non-specific effects of a control intervention, and to have both a remedial and prophylactic utility. Thus, in addition to its efficacy as a psychological intervention, the MR programme has been shown to fulfil the criteria of effective organisational interventions: the psychological changes brought about by the training have been shown to transfer to effective behaviour and enhanced performance on-the-job.

In organisational research (as distinct from other psychological research), demonstrating the effectiveness of a training intervention is only part of the task: the organisational milieu in which the training sits must also be studied. For the training to have a long-term impact (as was demonstrated in this research), the structures, policies and culture of the organisation must support the training effects. In Chapter 3, two models of training were described. The Individual Learning Model was deemed incomplete as it ignores key aspects of the organisational context which may prevent training outcomes from being translated into effective behaviour on the job. In contrast, the Increased Effectiveness Model, with its sole focus on enhancing organisational (rather than individual) effectiveness, has been found to be difficult to implement, as it calls into question core organisational assumptions and practices (Cutcher-Gershenfeld et al.,

1991) A model of training was therefore proposed which combined the two previous models. It focuses on the individual as the springboard for change (consistent with the tenets of cognitive therapy), but with important addition of organisational factors which affect the translation of learning into motivated and effective work behaviour. Consideration of several organisational factors was included in the MR programme, for example, an analysis was undertaken of the attitudes and behaviours constituting effective performance in the particular job and organisation, work-based activities were incorporated into the design of the training, and participants' managers were given advice as to how to support the training on the job. One salient factor that requires further consideration in terms of its impact on attributional training outcomes, however, is the culture of the organisation, and, in particular, its attributional culture.

This chapter offers some preliminary thoughts about the notion of 'corporate attributional style'. The term was coined by Furnham et al. (1992), who suggested that

“ with the process of selection (self selection and organisational selection) and socialisation within an organisation, certain corporate attributional styles develop which may be observed (sic) in organisational climate and culture”
(p37)

However, other than speculating that optimistic attributional styles would probably be associated with small, individualistic and competitive organisations and pessimistic attributional styles with bigger bureaucratic organisations, they took the concept no further. It is the purpose of this chapter to explore the notion of corporate attributional style. First, a definition is offered, and the rationale for studying the construct is examined. Next attempts are made to explore its utility. The construct of corporate attributional style is then positioned within a theoretical framework. This is followed by considerations of operationalisation and measurement, which lead into a description of the small research study that was conducted as a first attempt to examine and measure the concept. The chapter concludes with some further thoughts about the construct of corporate attributional style, and recommendations for its measurement and use.

8.1 DEFINITION

'Corporate attributional style' refers to the predominant way in which events are explained in organisations, in particular, it concerns the explanations for success and

failure endorsed by the organisation. As such, it underpins corporate attitudes towards persistence, adversity, responsibility, blame and control, and the behaviours emanating from such attitudes. If, for example, the culture of an organisation is predominantly blaming, that is, failures are attributed to stable and pervasive characteristics of the employee, work group, section or company, and successes are generally overlooked or minimised, one would expect the corporate equivalent of symptoms of a depressogenic attributional style to occur. Thus, the low self-esteem, poor persistence and giving up at an individual level may translate, at a corporate level, into difficulties in meeting production or service schedules, poor staffing and labour relations and declining productivity and performance in the company as a whole. In contrast, an organisation which endorses a more optimistic attributional style where, for example, credit is given for successes, and failures are regarded as learning experiences from which plans of action are developed, is likely to be generally more productive and, in particular, more robust in times of adversity or change. Thus, the notion of corporate attributional style can help to explain the psychological functioning and productivity of the company.

In addition, it provides an understanding of the mechanism by which the attributional style of individual employees is moderated in organisations. Processes of organisational socialisation shape employee thinking and behaviour. Furthermore, in many organisations, part of the criteria for individual success is a demonstrable affinity with organisational culture, in this case, attributional culture. Thus, the organisation not only conditions employees' attributional style, it also rewards thinking and behaviour that is consistent with the cultural norm. Passive and maladaptive employee behaviour resulting from properties of the organisation and its environment has been described by a number of researchers. For example, organisations that reinforce rigid policies and structures have been shown to engender employee perceptions of lack of control and helplessness (Blauner, 1964, Aiken & Hage, 1966). Similarly, there is evidence to suggest that certain types of appraisal and reward systems in organisations can lead employees to feel demotivated, perceiving that evaluations and rewards are unrelated to their performance (Green & Mitchell, 1979). Organisational labels on employees, such as "failure", also undermine effective functioning and condition failure (Martinko & Gardner, 1987), and unpredictable work environments have been shown to cause workers to feel hopeless and to withdraw (Cherniss, 1980). Martinko & Gardner (1982) propose that organisations

can inadvertently condition employee failure, and that this behaviour frequently continues through a process of learned helplessness, even after environmental changes make success possible. They term this phenomenon ‘organisationally-induced helplessness’.

I would suggest that Martinko & Gardner’s notion of ‘organisationally-induced helplessness’ is related to the attributional culture of the company and its effect on individual employees. Organisations which inadvertently condition passivity, helplessness and failure in their employees, I would argue, are more likely to have a pessimistic corporate attributional style than those which promote proactivity, control and success. The corporate attributional culture, in turn, would impact on the attributional style of employees. Thus,

“ environments themselves can act as independent sources of behavioural variance, and they operate additively with the influence of personality variables (Fineman, 1975, p113)

The moderating effect of organisational culture on the attitudes and behaviour of employees has been demonstrated in the study of achievement motivation (*nAch*), for example, high achievement cultures have been shown to facilitate the performance of high *nAch* people (Fineman, 1975). It is conceivable that, in a similar fashion, the attributional culture of an organisation will interact with employees’ individual attributional styles to influence the way in which they attribute events at work, and thereby their performance. This might occur in two ways. The rigid policies, structures and practices of companies with a pessimistic attributional style may act as stressors, sufficient to activate the existing attributional styles of employees. For individuals with pessimistic attributional styles, such corporate contexts would be likely to reinforce depressogenic tendencies, thereby reinforcing the downward spiral of failure. Secondly, because attributional style is learned (Seligman, 1991), it is possible that the attributional culture of an organisation is also learned, shaping the individual attributions of its employees through processes of socialisation. However, it is unlikely to be a unidirectional process. The attributional style of an organisation evolves in interaction with the traits (personality, gender, ethnicity, attributional style) of its employees. The latter, in particular the attributional styles of employees, moderate the impact of the former and vice versa.

In summary, the study of an organisation's attributional culture provides a potential source of information about the psychological functioning (and productivity) of the company as a whole, an understanding of the manner in which the attributional style of employees may be moderated by the organisational context, and, importantly for this research, a framework for ascertaining whether the results of workplace attributional training are likely to be sustained on the job (sustained impact depends on a supportive corporate attributional style). As such, corporate attributional style can be treated as both a dependent variable that is modifiable by individual and organisational factors, and an independent variable that modifies future events.

But is the notion of 'corporate attributional style' anything more than an interesting concept? Does it have meaning and practical utility for organisations? I would suggest it does, and offer the following example as an illustration. The IT division of a large city bank with which I am familiar is currently undergoing a major restructuring in order to increase quality and efficiency. Although the improvements are urgently needed (the division is at risk of being closed down, and the IT function outsourced), the low morale, suspicion and cynicism of the IT staff is undermining the success of the change process. Some of the resistance to change is due to the anger and resentment felt by individuals who are having to apply for their own jobs. But on a divisional level, another reason for the inertia has become apparent. In a city rating of IT functions, this bank had in the past consistently rated poorly (it was ranked 26th out of 30). The IT staff felt this ranking was fair, and that little could be done to improve their performance (in attributional terms, they ascribed their ranking to global and permanent factors). However, recently, their ranking improved to 6th place. The employees' reaction to their success was one of scepticism, cynicism and mirth. As a division, they minimised the success, suggesting it was a one-off rating or even a mistake (external, temporary and specific attributions). Further enquiry within the division brought similar examples. A tendency to passively accept their failures, accompanied by an inability to embrace their successes and to believe in themselves as a successful division, I would suggest, is a symptom of a pessimistic division-wide attributional style. It is undermining the effective implementation of the change process.

Having looked at the possible utility of the notion of corporate attributional style, and a rationale for its investigation, the next stage is to consider where the construct sits theoretically. To explore this question, a brief overview of a) attributional theory and b) organisational culture in relation to corporate attributional style will be undertaken.

a) Attributional Theory and Corporate Attributional Style

Attribution theory has been accused of creating an overly complex model of common-sense explanations. It has been argued that human beings do not consciously seek explanations in such an elaborate and accurate manner as the theory would suggest, and that much thought is 'mindless' (Langer, 1978) and dependent on well-learned and general scripts. Other critics allege that attribution theory has emphasised personal factors to the neglect of social factors. This has led to the masking of attributions that refer to group membership and which explain behaviour in terms of group stereotypes.

Wells (1981) offers a solution to the above criticisms. He suggests that people make causal inferences about their environment in two different ways: through 'original processing' which entails the direct observation of relationships, such as the covariation between two events, and which occurs when stimuli cannot be assimilated into previous knowledge, and through 'socialised processing' whereby people adopt cultural heuristics of a causal nature, which are communicated in a societal group. It may be argued that causal styles and hypotheses are developed and passed on within organisations in a similar way through a combination of original processing (involving the use of covariation information and influenced by the attributional style of the employee) and socialised processing (the corporate attributional style). Until now, however, organisational patterns of causal explanations have not been investigated.

Work in the area of attributions at the intergroup level also has relevance for the study of corporate attributional style. Research in this vein examines how members of different groups explain the behaviour of their own and other groups. Many studies have drawn attention to a group-based equivalent of individual self-serving biases in attribution: similar to individuals, group members tend to make dispositional attributions for positive acts and situational attributions for negative acts when referring to ingroup members.

(see, for example, Pettigrew, 1979, Hewstone, 1988) It is conceivable that such attributional biases may occur in organisations. Similarly, a group-based equivalent of the actor-observer bias may operate in organisations. If the attributional culture of the organisation endorses such attributional biases, and allows them to permeate throughout workgroups and project teams, it is likely that 'ingroups' and 'outgroups' may form (e.g. Hewstone, 1988), resulting in poor employee relationships, intergroup conflict, difficulties in meeting production or service schedules and declining productivity.

Juxtaposed with the attributional culture at an organisational and a team level, are the various interpersonal attributional processes that take place between supervisors and subordinates. Attributional biases on the part of managers may exacerbate the impact of a pessimistic corporate attributional style, and the attributional style of a manager will interact with the attributional style, work attitudes and performance of employees. Research by Koestner et al. (1990), for example, has shown that the impact of a manager's feedback on an employee's motivation is moderated by the employee's attributional style. It was found that social comparison feedback is better-suited to individuals who typically attribute successful outcomes to internal causes, than to those who are reluctant to take credit for their successes. This latter group benefit more from mastery-focused praise rather than from praise which compares their performance to others. Thus, if the corporate attributional style is predominantly internal, and the accepted way in the organisation is to motivate employees through social comparison feedback (as it is in many insurance companies, for example), then the feedback may actually reduce the motivation of employees with an external attributional style. It is important, therefore, for managers to be not only aware of their own attributional style, and that of the company, but also those of their employees in order to enhance their motivation, resilience and productivity.

Organisational Culture and Corporate Attributional Style

Definitions of organisational culture abound, and to date there has been little agreement in the literature as to what the concept means, what its parameters are, and how it should be measured. Perhaps the most useful attempt at defining the elusive concept has been offered by Schein (1990) who suggests that organisational culture is (a) a pattern of

basic assumptions, (b) invented, discovered or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid and, therefore, (e) is to be taught to new members as the (f) correct way to perceive, think and feel in relation to these problems (p 111) Schem adds that the strength and internal consistency of a culture are, therefore, a function of the stability of the group, the length of time the group has existed, the intensity of the group's learning experiences, the mechanisms by which the learning has taken place (i.e positive reinforcement or avoidance conditioning) and the strength and clarity of the assumptions held by the founders and leaders of the group These criteria are relevant for the notion of corporate attributional style Just as at an individual level, attributional style is learned and is modified by significant life events, so at the corporate level, attributional style as a component of organisational culture is learned from the values and behaviours of leader figures and it evolves in response to critical incidents in the organisation and in interaction with the traits (personality, gender, ethnicity, attributional style) of employees It is imparted to new members through processes of selection and socialisation

Bartunek & Moch (1988) offer a definition of organisational culture with a slightly different emphasis They present organisational cultures as shared schemata, and propose that organisational development is a process of aiding organisational members to change their schemata This fits neatly with the notion of corporate attributional style, a cognitive phenomenon, which may be seen as shared attributional schemata¹ It also reinforces the approach taken in this research of changing attributional style at the individual level, using cognitive techniques As Rentsch (1990) points out, people's behaviour in organisations is based on their interpretations of, or the meaning they attach to, situations Attributional processes are one form of meaning-making - about the causes of events Thus, in this context, work behaviour is affected by individual and shared interpretations of events, and the individual and shared assumptions underlying those interpretations

¹ Various attribution theories propose that, at an individual level, attributions are formed from both causal schemata and covariation information (e.g. Kelley, 1972, Abramson et al., 1989), but particularly from causal schemata if individuals lack the time or motivation to perform covariation analysis, or if they have experienced stressful events which activate the causal schemata (attributional style)

Corporate culture influences human resource management practices in organisations, such as hiring, placing, rewarding, monitoring, developing and promoting (Kopelman, Brief & Guzzo, 1990). Thus, it can affect the way in which the organisation processes information, its response to external demands and constraints, the process of decision-making, the way people work together, employee motivation and productivity (Davies, 1993, Kopelman et al., 1990). In a similar manner, an organisation's attributional culture can affect its behaviour and performance. Manifestations of learned helplessness at the corporate level, I would suggest, include poor staffing and labour relations², difficulties in meeting production or service schedules, declining productivity and increased staff turnover. Furthermore, the process is a dynamic one, corporate attributions and causal schemata change as a result of the organisation's performance, and performance is affected by corporate attributional style.

Any stable group with a shared history can have a culture. Thus,

“some organisations will have no overarching culture because they have no common history or have frequent turnover of members. Other organisations can be presumed to have ‘strong’ cultures because they have shared important intense experiences, as in a combat unit” (Schem, 1990, p111)

However, organisations contain groups and units within them, each of which may have its own culture. Thus, within an organisation there are likely to be many different subcultures (Gregory, 1983, Martin & Shiel, 1983), and recent evidence suggests that they are formed around *interactions* of people (Rentsch, 1990).

Some writers distinguish between **explicit culture**, the typical and distinctive patterns of behaviour of people, as well as the typical and distinctive artefacts they produce, and **implicit culture**, the beliefs, values, norms and premises which underlie and determine the observed regularities in behaviour (Payne, 1991). Others define the former as ‘climate’, the surface manifestations of culture, which includes organisational policies, practices and procedures, as well as specific occurrences and behaviours (Reichers & Schneider, 1990). Regardless of differences in conceptualisation, ‘corporate attributional style’ covers both aspects - the behaviour and artefacts as well as the underlying beliefs, values and premises. This has implications for the measurement of the construct, to which we now turn.

² although militancy might reflect a positive sense of control from a union perspective

8.2 OPERATIONALISATION OF THE CONSTRUCT

Traditionally, climate has been assessed with questionnaires, in which organisational members are asked to describe or rate the organisation, its policies, practices and procedures. They are not typically asked to interpret the descriptions. Thus, whilst permitting an objective assessment of organisational criteria, the method does not allow any measurement of employees' reaction to these criteria³. In contrast, shared interpretations and understanding of organisational events are a component of most definitions of culture (e.g. Wilkins, 1983, Louis, 1980), and, as such, form an integral part of its measurement. Meaning in culture research has typically been measured qualitatively. However, Schein warns

“If we are to take culture seriously, we must adopt a more clinical and ethnographic approach to identify clearly the kinds of dimensions and variables that can usefully lend themselves to more precise empirical measurement and hypothesis testing” (Schein, 1990, p109)

Schein informs us that *“the content and strength of a culture have to be empirically determined. They cannot be presumed from observing surface cultural phenomena”* (Schein, 1990, p111). Reichers & Schneider (1990) speculate that shared meanings and assumptions might be accurately be assessed through questionnaires that are developed for the particular organisation or subgroup, and derived from in-depth interviews with key employees. Yet, a generalisable quantitative method for assessing meaning (culture) in organisations has yet to be developed (Rentsch, 1990)

In analysing the culture of an organisation, Schein suggests it is desirable to distinguish three levels of cultural manifestations

- observable artefacts, including physical layout, dress code, the manner in which people address each other, organisational stories and myths as well as more permanent archival manifestations such as company records, products, mission statements and annual reports. Of most value here is noting anomalies
- organisational values. These can be studied through interviews, questionnaires or survey instruments. Interviews, particularly open-ended interviews, are an effective

³ If they do measure meaning at all, it is the researcher's interpretations of events in the questionnaires, rather than respondents' meanings

tool to reveal espoused values, especially if coupled with observation. Again, noting inconsistencies between what is claimed and what is observed will facilitate the next layer of investigation.

- the underlying assumptions that determine perceptions, thought processes, feelings and behaviours can be exposed through intensive observation and interaction as well as more focused questions. Deeply held assumptions often start out historically as values, but gradually they are taken for granted and become less and less open to discussion. An understanding of some of the organisation's assumptions aids the deciphering of behavioural and artefactual phenomena.

Investigation at all three levels is recommended by Schem, for to confine the research to, for example, artefacts, may lead to incorrect inferences about the organisation, as it is not known how the artefacts connect with underlying assumptions. This has implications for the measurement of corporate attributional style: it is desirable to investigate the construct at each of the three levels - artefacts, values and assumptions - using, where possible, a mix of quantitative and qualitative techniques. Thus, for example, the surface attributional style of an organisation might be ascertained by analysing company records and annual reports. An understanding of more deeply-held values, including the organisation's attitude towards success and failure, could be studied through interviews and discussions with employees, as well as through observations of the organisation during its day-to-day business.

In contrast with the measurement of attributional style at the individual level, specific techniques to ascertain an organisation's attributional culture have yet to be developed. Cognitive mapping methodologies may offer some guidance. A cognitive map is an individual's representation of the concepts and relationships he/she uses to understand the environment (Swan, 1994). Most of the research on cognitive mapping has focused on identifying and describing managerial cognitions in decision-making and strategy formulation. Many different types of relationships are portrayed in cognitive maps, including proximity (A is close to B), similarity (A is similar to B), cause (A causes B), category (A is a subset of B) and contiguity (A follows B), by far the most used map of manager's cognitions is a causal map (Fiol & Huff, 1992). Different techniques have been developed to extract and analyse statements made by individuals in order to

produce a cognitive map. They include content analysis of text to reveal key concepts and themes, repertory grid techniques, interviews in which the participants interview themselves, such as the Self Q technique (Bougon, 1983) and causal mapping methodologies such as the systematic coding of causal relationships revealed in text and transcribed statements (Swan, 1994). Computer software, such as Graphics COPE has also been developed to produce causal maps for strategic options development and analysis (Eden, 1989).

Some writers have argued that cognitive maps also exist at the organisational level (e.g. Weick & Bougon, 1985) and have described ways of producing organisational maps, in most cases, through the aggregation of maps of individual managers. This has been accomplished in two ways. In the first method, the shared beliefs about causes and effects are extracted and depicted as a means-to-end flow chart called an 'etiograph' (Bougon et al., 1977). The advantage of this method is that it focuses on shared beliefs which are likely to be closely tied to organisational strategy and performance (Schwenck, 1988), its disadvantage is that it loses individual information. In the second method, the individual maps are merged by overlaying them (Eden, 1989). The strength of this process is that common features and links are represented (and only appear once), but unique features and details of individual maps are also maintained. The disadvantage is that the merged maps are typically very complex, and may contain several hundred concepts, which makes it difficult to draw useful conclusions from them (Swan, 1994). Alternative strategies for the development of organisational maps include building one directly with a group (e.g. Eden, 1990), or developing it by inference from documentary evidence relating to the organisation (Eden, 1992).

Clearly, organisations are more than products of the cognitive processes of their members (c.f. Sims & Gioia, 1986), therefore attempts to measure organisational cognition of any form (including corporate attributional style), I would argue, must involve more than a mere aggregation of individual cognitions. Recognition must be given in the measurement process to the organisational 'gestalt', those cognitions and values that are unique to the organisation as a whole. But such beliefs are often deeply-held and taken for granted, and are therefore difficult to access. With their emphasis on the aggregation of individual cognitions, cognitive mapping methodologies, it must be

reluctantly concluded, do not appear to provide a useful strategy for the measurement of corporate attributional style

In contrast, McLean & Marshall (1991) offer a number of practical techniques to gain access to the assumptions and values underlying an organisation's culture, which can be applied to the measurement of corporate attributional style. They include

- **Seeing through the eyes of the newcomer** New employees experience the culture of the organisation with directness and freshness. They are particularly sensitive to the existence of unwritten rules, and therefore can articulate cultural norms that are no longer apparent to longer serving employees
- **Breaking the code** Cultural norms go unnoticed until they are broken. One way of learning about a culture, then, is to look at recent incidents when the rules have been broken or disrupted
- **Exemplification** Key features of a culture are sometimes emphasised through a particular incident or event. Jokes and stories are one form of exemplification, and can express aspects of the culture in encapsulated form.
- **The organisation's 'who's who'** Often within organisations, groups or individuals can be identified who exemplify particular aspects of the culture. They are frequently labelled heroes, heroines, villains and fools, or combinations of these roles. Heroes and heroines are typically exemplars of commitment to the culture who have gone beyond the call of duty. Villains are generally those who have gone against the core beliefs of a culture, and fools are those who unwittingly disregard or break the cultural rules
- **Observation of day-to-day events** Cultures are more readily apparent when people face unusual or unclear situations. The ways in which they make sense of the situations, how they define them and what courses of action they follow, or fail to follow, reveal their familiar and habitual ways of operating. New situations are fitted into existing frameworks, and culture is the medium through which this translation takes place. Culture can thus be glimpsed in employees' responses to novelty and uncertainty
- **Making comparisons** Noticing what is unusual about another organisation helps to raise awareness about what is considered normal in one's own organisation

Therefore, highlighting differences between this and another organisation is a useful way of becoming aware of aspects taken for granted in one's own company

- Adopting a detachment Standing back and viewing the organisation as a stranger enables one to perceive taken-for-granted assumptions more clearly Glimpses of such detachment can be gained upon returning from a business trip or a holiday At these times, one is less enmeshed in the culture, and therefore able to see things more clearly

These mini strategies, in combination, offer a potential tool for accessing an organisation's attributional culture They can be operationalised through interviews with employees which focus on attributional matters, as well as through observations An iterative process is needed, I would suggest, involving insider knowledge and outsider questions in order to gain access to an organisation's attributional culture

"The use of an outsider to the organisation, allows him/her to question what the insiders take for granted and help them to express their 'patterns of meaning', assumptions and underlying values" (McLean & Marshall, 1991, p24)

Another potentially viable method for measuring corporate attributional style is through an attributional analysis of natural discourse and company literature This can be accomplished through content-analysis of verbatim transcripts of interviews or of other forms of material such as company records, annual reports, speeches, newspaper reports, diaries etc There is typically an abundance of material, as people offer causal explanations even when not specifically prompted, and they do so particularly in response to aversive and surprising events (Peterson & Seligman, 1984b, Wong & Weimer, 1981) In fact, attributions are offered at a rate of at least one per minute, and in many cases up to four per minute during normal conversation (Stratton et al., 1988) Another advantage of the technique is that it can be applied retrospectively (even to material that has been collected for other purposes) Two coding systems have been developed

1. *Leeds Attributional Coding System - L.A.C.S. (Stratton et al., 1988)*

This method lends itself to the analysis of material typical of the kind collected through the use of structured interviews with either individuals or small groups (Stratton,

Munton, Hanks, Heard & Davidson, 1988) The system was developed as part of a wider investigation of family functioning under stress, but has been used in a variety of business applications, including brand and consumer choice, personnel selection and training, team and organisational culture, and advertising. The analysis involves identifying the causal statements and categorising them according to five attributional dimensions: internal/external, global/specific, stable/unstable, personal/universal and controllable/uncontrollable. Whilst the dimensions are not all orthogonal, according to Stratton et al. (1986), each provides unique information. The internal/external dimension refers to whether the cause resides within the person, or in other people or circumstances. Global/specific refers to how pervasive the cause is, and stable/unstable is a measure of its permanence. The personal/universal dimension is a measure of the uniqueness of the cause to the individual⁴. Controllability in this system refers to the outcome, or to any of the causes leading to it, contrary to the definition adopted by Weiner, which focuses on the controllability of the cause (the inherent ambiguity of which was discussed in Chapter 4).

Dimensions are coded dichotomously in the LACS, and specific instructions are detailed in the manual for both the extraction and coding functions. Consistent with Jones & Nisbett (1972), a distinction is made between the attributions of actors and observers, such that the speaker and target are coded separately for the dimensions of internal-external, personal-universal, controllable and uncontrollable⁵. The LACS is reliable and valid. Inter-rater reliability for the extraction of causal statements has been demonstrated to be 91%, and to range from 94% (stability and controllability) to 76% (globality) for the dimensional coding (Stratton et al., 1988).

2. *Content Analysis for Verbatim Explanations - C.A.V.E. Technique*

A parallel technique to the Leeds Attributional Coding System, the CAVE technique (Peterson & Seligman, 1984b) permits the attributional analysis of written or spoken materials. However, in contrast to the LACS with its broad descriptive and diagnostic

⁴ Although in the LACS, 'personal' is also taken to refer to the outcome and the link between the cause and the outcome if they indicate something unique about the individual.

⁵ According to the LACS authors, the question of whether the cause is stable or unstable, or whether it is global or specific are rarely influenced by whether the target is someone other than the speaker (Stratton et al., 1986).

purpose, the specific aim of the CAVE technique is to distinguish individual consistency in causal explanation. Also in contrast to the LACS, but similar to the Attributional Style Questionnaire (Peterson et al., 1982), attributions are coded according to three causal dimensions, internality, stability and globality, and the dimensions are rated on a seven-point continuum. This latter feature provides more information than the dichotomous ratings of the LACS, and obviates the necessity for a 'don't know' category. Indeterminate attributions are rated '4'⁶. Judges extract causal statements from written descriptions, but only attributions pertaining to the subject are coded (c.f. LACS). Consistent with the RLH theory on which the CAVE technique is based, the technique is primarily used to extract and code statements about negative events, but it is equally applicable for the attributional rating of positive events.

The CAVE procedure is non-intrusive, and because it uses judges who are blind to outcome, it is potentially unbiased. Inter-rater reliability using a Cronbach analysis was found to be 0.9 for the extraction of causal statements (Peterson, Bettes & Seligman, 1984), and 0.8 for the attributional coding, for both negative (CoNeg) and positive (CoPos) events (Schulman et al. 1989). A study comparing the inter-rater reliability of highly-trained versus minimally-trained judges indicated that they were identical, suggesting that only minimal training is necessary to achieve a high degree of reliability with the CAVE technique (Peterson & Seligman, 1984b). The construct validity of the technique has been demonstrated in relation to measures of depression (Peterson, Bettes & Seligman, 1985), illness, and sports achievement (Peterson & Seligman, 1984b). However, evidence of its convergent validity with the Attributional Style Questionnaire is not strong, e.g. CoPos $r = 0.52$, CoNeg $r = 0.48$ (Schulman et al., 1989), internality $r = 0.41$, stability $r = 0.19$ and globality $r = 0.23$ (Peterson, Bettes & Seligman, 1985).

In summary, attributional coding systems offer a viable, and indeed interesting, approach to the measurement of corporate attributional style. They " *have the advantage of being non-intrusive, and therefore of high validity, while at the same time, producing extremely reliable results*" (Stratton et al., 1988, p13). As such, they sit at the cross-roads of qualitative and quantitative methodologies and, as a technique for accessing

⁶ However, to be fair to the developers of the LACS, they do state "We have found that with a high degree of practice, it is possible to dispense entirely with the category of 'don't know' without any apparent reduction in reliability" (Stratton et al., 1988, p71).

organisational culture, therefore fulfil Schem's (1990) entreaty for greater emphasis on empirical measurement. Furthermore, the method offers a means of accessing both the surface manifestations of an organisation's attributional culture, through the analysis of company literature, as well as the deeper, more implicit culture through the analysis of transcripts from carefully constructed interviews with employees.

A third, somewhat unusual, methodology for measuring corporate attributional style is a technique that has been borrowed from the field of anthropology and used in market research activities: anthropomorphism. I would suggest that, with a little creativity, it can be adapted for the measurement of corporate attributional style⁷. In this context, the procedure would entail conceptualising the company as a person, attributing a human form and personality to it, and then measuring its attributional style. Thus, a sample of employees from a variety of positions within the organisation could be asked to envisage the company as a person. To assist them in this regard, they would be encouraged to describe specific features of the 'company' person, its age, sex, marital status, dress, and general appearance, as well as its personality, behaviour and pastimes. Once they are able to embrace the persona of the company person, employees would be requested to complete an attributional style questionnaire, not as themselves but as the 'company' person. To ensure that they are able to perform this function in the anthropomorphised role, I would suggest that they previously complete the same questionnaire (as themselves), so that comparisons can be made. Of course, this is not a fail-safe method of ascertaining that the employee is assuming the persona of the company, because if the corporate attributional style of the organisation is especially pervasive, the chances are that it will have shaped the individual attributional styles of employees. Nevertheless, consistency of 'company as person' questionnaire scores across employees, with differences from their individual questionnaire scores, would allow the conclusion to be drawn, with a degree of confidence, that the technique was providing access to the attributional style of the organisation (different employee perceptions of the company notwithstanding). Thus, the technique offers a novel way of accessing corporate attributional style, and one, I would suggest, that also provides a potential entry point to

⁷ I am grateful to Emer Rodknight, Market Research Consultant extraordinaire, for providing the initial impetus to my thinking along this line.

the deeper values and assumptions of the organisation, which may not be readily surfaced by other methods

In summary, this section has profiled a number of techniques to measure corporate attributional style. Having defined the construct, discussed its theoretical and practical relevance and considered methods for its operationalisation, the next step is to attempt to put it all into practice. It is to this step that we turn next.

8.3 THE RESEARCH STUDY

For the attributional training programme to have a long-term effect, there is a need for the organisation's attributional culture to reinforce the training. Sustained impact depends on a supportive corporate attributional style. For this reason, a small research study was undertaken to ascertain whether 'corporate attributional style' could be meaningfully measured and interpreted in an organisation. Attempts were made to investigate the construct at the three levels of cultural analysis recommended by Schein (1990) artefacts, values and assumptions. Further, a multi-method research strategy involving a mix of quantitative and qualitative techniques was employed, allowing conclusions to be drawn about the construct as well as its measurement.

The Context

Pearl Assurance Ltd provided the setting for the research. A large old British company, for many years it had the reputation of being 'a sleeping giant'. It was slow-moving, with very little technology (e.g. photocopiers were only brought into the branches 8 years ago, and computers and fax machines were introduced in the last 5 years). With a strong customer-focus, no sales targets and fairly good salaries, it provided a comfortable job-for-life for its sales representatives. Five years ago, however, Pearl Assurance was bought by Australian Mutual Provident (AMP), a modern, results-oriented company. Large scale changes were made. The entire senior management team was replaced, a huge investment was made in information technology, the salaries of sales staff were slashed as commission replaced salary as the main element of earnings,

and the commission rates were also drastically reduced. Employees were now regarded as expendable, if they didn't perform, they were asked to leave.

In terms of corporate culture, because of the age and size of the Pearl, each of the ten company divisions had evolved its own subculture prior to the AMP acquisition. However, with the take-over, a new company-wide business culture was imposed on the 'sleeping giant'. Hence, at the stage at which this research was conducted (three years after the AMP acquisition), the divisional subcultures may not have been as differentiated as previously. Nevertheless, to be safe, and in recognition of the influence of geography on culture (McLean & Marshall, 1991), corporate attributional style was measured at the divisional level. 'A' Division (East London and Essex) provided the setting for the research. Its sales staff of 360 Sales Representatives and 41 Sales Managers were attached to eleven district offices within the division.

Method

Three methods were used to measure the corporate attributional style in the Pearl A Division: observation, interviews and questionnaires. In each case, an interactive process of insider knowledge and outsider questions was used⁸.

A) Twenty in-depth interviews were conducted with sales staff in the division. To ensure a good cross-section of interviewees, eight districts within A Division were selected according to the following formula:

- * 2 high productivity districts
- * 2 low productivity districts
- * 2 districts with high turnover of staff
- * 2 districts with low turnover of staff

Employees from different levels within the division were interviewed (one sales manager, SM, per two sales representatives, SRs), and, in order to capitalise on the greater sensitivity of newcomers to cultural norms (McLean & Marshall, 1991), one of the interviewees from each district was a recent appointee.

⁸ I was the outsider to the organisation.

A structured interview schedule was developed (Appendix VI) Issues regarding the attitude of the company to success and failure as well as to persistence, adversity, responsibility and blame were explored It was piloted with one of the A Division trammers, then adjusted and piloted again in one of the districts According to optimal interview practice (Hedges, 1985), before the commencement of the interview, the interviewees were given a rationale for the interviews, an outline of what could be expected to happen during the actual interview, including what the interviewees would be asked to do, the reason for interview being taped, what would happen to the data, and assurances of confidentiality The interview commenced with warm-up questions which were simple, factual and non-controversial It then progressed to an exploration of what makes the Pearl distinctive from other insurance companies⁹, and how the district is different from others in the Pearl Next, in a more direct attempt to gain access to issues pertaining to corporate (divisional) attributional style, interviewees' opinions were sought about the factors determining successful selling, coping with difficulties at work, promotion and employee turnover Along the same lines, interviewees were asked about the ways in which a typical Pearl person explains the causes of their successes and failures Lastly, in an attempt to gain access into the corporate culture via a different route, McLean & Marshall's strategies of 'exemplification' and 'breaking the code' were employed Interviewees were asked to think of a typical joke or story about the Pearl, and to consider how they would explain the joke or story to a newcomer to the company Similarly, they were asked to describe the unwritten rules in the Pearl, a recent incident in which the rules were disrupted or broken, and its effect

The interviews were recorded and analysed in two ways First the transcripts were analysed for specific attributional information, and to identify repeated attributional themes

"The challenge of learning about a culture entails uncovering connecting themes, rather than clearly defining things" (McLean & Marshall, 1991, p24)

Second, an attributional analysis of fifteen of the interviews was performed using the Leeds Attributional Coding System. The extraction and coding of attributions was undertaken by the LACS team at Leeds University, using 'blind' raters and a semi-

⁹ According to McLean & Marshall (1991), highlighting the differences between one's own and other organisations is a useful way of raising awareness of taken-for-granted aspects of the company

computerised method of coding interview tape recordings (rather than transcripts) The method is time-efficient and highly reliable Analysis and interpretation of the coding output was performed by me

B) The Attributional Style Questionnaire (Peterson et al., 1982) was completed by a sample of A Division employees Each person completed the questionnaire twice - once as himself¹⁰, and the second time, later, as the anthropomorphised company The same twenty employees who were interviewed participated in this segment of the study The first questionnaire was sent to them a week before the interview, the second was completed at the conclusion of the interview This enabled me to use the latter part of the session to assist subjects to envisage the company as a person Interviewees were asked whether there was a person or group of people who they viewed as 'typically Pearl' They were asked to describe the individual(s) This was intended as an advance organiser for them to envisage the Pearl as a person To assist them in this regard, they were encouraged to describe specific features of the Pearl person, its sex, marital status, dress, general appearance, as well as its personality, behaviour and pastimes Once they were able to do this, they were asked to complete the ASQ as the Pearl person would The questionnaires were scored in the standard way, providing a measure of attributional style for positive events (CoPos) and for negative events (CoNeg) The consistency of scores for the anthropomorphised company were checked across subjects, and they were compared with the scores from the ASQs completed as self

C) Observations of Sales Representatives were undertaken both in the division and during the Managing Resilience courses, over a period of 18 months To facilitate my understanding of the insurance sales role, I attended a two-week induction course for new sales representatives, during which time I learnt about the various financial services and products offered by insurance companies, and the laws regulating their use I even sat for (and passed!) the licensing exam. I then visited the A Division office on a number of occasions, as well as several of the district offices During these times, I observed the day-to-day events, how they were interpreted and what courses of action were taken The Managing Resilience courses provided another arena for observations They were structured to include a long coffee break and lunch, in order to allow the delegates to

¹⁰ They were all male

discuss the course material and relate it to aspects of their work. It served another function too: the informal discussions of sales representatives with each other and with me were a rich source of information about the company as a whole and its corporate attributional style.

Results

A) Findings From Interviews and Observations

Extensive organisational change, on a scale hitherto unseen in the 125 year history of the Pearl, had taken place with the AMP acquisition three years earlier. And the change was continuing: the company was still in a state of transition when this study took place. For the purposes of achieving access to the attributional culture of the company, the timing was rather fortuitous, as it allowed employees to gain some detachment from the organisation and it gave them the opportunity to perceive assumptions that had previously been taken for granted. Even more importantly, employees were able to clearly articulate the new Pearl culture versus the 'old Pearl'. The old Pearl was described as conservative and sleepy, with the main focus in the agents' role on the collection of insurance premiums.

"While the Pearl salesman in his anorak and bicycle clips was at the back door collecting the penny premiums, the Pru were going in the front door selling large policies"

The new Pearl, in comparison, was perceived as sales-oriented and results-driven.

"Watch out for your Pearly white salesman, he has got sharp teeth"

'A' Division was considered to be more competitive and results-driven than most.

Great importance is placed on success in the new Pearl. In fact, according to one of the Sales Managers interviewed, it is one of the unwritten rules of the company that agents must be successful. Furthermore, success is defined rigidly in terms of value of sales made per week, with the amount of effort expended on other areas of the job, such as prospecting, setting up future sales, collecting premiums or administration, largely inconsequential. A typically 'new Pearl' way of thinking is that a SR who makes a large number of approaches in a week, with some appointments for the following week, but

has not sold any business, has been less successful (he has not reached his target, nor earned the company - or his manager - any money) than a SR who makes only 10 calls in the week with one of them resulting in a sale. Certainly, some of the SMs gave lip service to factors other than sales contributing to a successful week, but when pressed, indicated that a week was not effective if there weren't any sales. Thus, thinking is dominated by end-product, with little emphasis on process. This was somewhat bluntly summed up by one SM

"They may be nice guys, good at collecting and administration, but if they are not writing the business, they are not a lot of use. It's not finding its way into my pay packet nor theirs."

Thus, the new culture of the Pearl is dominated by sales. The sales figures and rankings of the SRs are placed on the office walls each week. Promotion is determined by sales performance, and all company incentives are sales-based. Employees tend to be viewed as dispensable, if they don't perform, they are of limited value. In the words of another SM,

"The new Pearl doesn't suffer fools gladly, or anybody who is sick or has a problem."

With such a premium placed on success, it was not surprising that very clear attributions for success and failure emerged from the observations and interviews in A Division. There was a strong pattern of internal, stable, global and controllable causes for successes, summed up by one SR with the following statement

"My success is due to me. It may be due to other things as well, such as training, management, but initially it is me. If I do not believe in myself, I am not going to be a good salesman."

Good communication skills, planning, hard work, persistence, product knowledge and being well organised were the particular causes of success that were highlighted by SRs. In contrast, difficulties and failures were attributed to factors such as the recession, the sales targets imposed on SRs, the company's commission structure and lack of support from the managers - external, global causes, sometimes stable, other times unstable. These attributional patterns suggest the presence of a generalised self-serving bias, which, of course, is not unexpected in an insurance context. A similar self-serving bias was evident in the cognitions of the Sales Managers: successes were attributed to their own good management of the SRs, but difficulties or failures were attributed to factors

inherent in the SRs themselves, such as their lack of organisation, low motivation or poor selling skills (internal, controllable factors)¹¹ However, surprisingly, and to their credit, the SMs also took some responsibility for SRs' failures, which they attributed partially to their 'poor management' of the SRs. Unfortunately, the SRs did not perceive this (maybe it was not communicated to them), and a great deal of resentment was expressed that all the blame was placed on them. This is an example of incorrect beliefs about others' attributions resulting in ill-feeling. Nevertheless, looking at the overall attributional pattern across managers and employees, it can be concluded that the corporate attributional style in A Division as far as success and failure in selling is concerned, is an 'optimistic' one (as defined by Seligman, 1991), that is, success is attributed to internal, stable and global factors, whilst failure is perceived as due to specific and temporary causes.

Was this the predominant pattern of attributions for other topics as well? The subject of the weekly sales target was a sensitive one in the division. There was a consensus among sales managers and agents that it was being used in the wrong way. According to one SM

"The weekly target has been introduced as a feared thing. It could have been a motivator, for example 'We're going to have a weekly objective, which you'll achieve because you have the capabilities, so that we can monitor your progress and increase your earnings'. Instead it is more a case of 'If you don't get this target, you're in trouble'. A target is good to have as long as it is achievable and motivating."

But for many sales representatives, their target was perceived as anything but achievable and motivating. New SRs, instead of being allowed time to learn and get established in the job, were given a £800 weekly sales target from the outset.

"They are now employing married people with a wife and a couple of kids and probably a large mortgage. These guys have to meet their targets, because they need the job and the money. But they are scared - they know that if they haven't made their target by the end of the year, they are out."

The same pressure was placed on the longer-serving SRs. Many of these people were employed originally as collectors - "if they fell over business, they got a pat on the back and a letter of congratulations". Now they were struggling to meet high weekly sales

¹¹ This pattern of attributional differences between SRs and managers is similar to an actor-observer attributional bias.

targets Attributionally, there was general consensus that the cause of the unrealistic sales targets resided with the AMP senior strategists (external, uncontrollable), rather than with individual sales managers in district offices

Not surprisingly, employee turnover was high Many SRs could not cope with the demands of the job, such as the long hours or the complicated accounts system, or they couldn't earn a decent living, and so they left the company The SMs attributed the high rate of turnover to weaknesses in the SRs and to the poor selection system which, they maintained, was recruiting the wrong sort of people The SRs, in contrast, attributed it to the difficulties of the job, as well as to lack of support from management¹² According to one SR

“Lack of back-up is the main cause of turnover in sales reps It's no good saying to someone ‘Well, I've done it, so it can be done’ Some people need help - I certainly need help ”

Such attributional discrepancies, I would suggest, lie at the heart of some of the ill-feeling and conflict observed in A Division Nevertheless, despite the discrepancies, again, the predominant attributional style was an ‘optimistic’ one - turnover was attributed to external and temporary factors

Two factors raised by Sales Representatives on many occasions as having a major effect on their motivation were the management style and pay structure within the Pearl. Not only were their guaranteed salaries ceasing in a few months, which meant they would have to exist on commission alone, the commission rates had been reduced as well. For example, the 15% commission per year previously paid on a GB policy (car insurance, house contents etc), had been reduced to 12.5% in the first year and 5% thereafter Many SRs said they were finding it more and more difficult to earn a living in the Pearl, and of course, those who had been working for the Pearl for some time felt they had been cheated by the company¹³

¹² This is another example of an inter-group actor-observer bias

¹³ However, new SRs continue to receive a basic salary plus commission for 12 months, and this package was perceived to be more generous than that offered by many other insurance companies, which paid commission only Thus, the disaffection with the Pearl pay structure tended to be confined to the longer serving SRs

The management style in A Division was also the focus of much comment. It was generally perceived to be aggressive and negative. Certainly, this was very much the style of the Divisional Manager (I observed - and experienced - his aggressive style on a number of occasions). He was extremely results-driven and had a very blaming, retributive style which was passed down through the managerial levels to the SRs. Results were achieved by threats and fear. Interestingly, each level in the hierarchy could articulate, and criticise, the style of their own manager ("*negative*", "*pressuring*", "*god is in a fury if we slip from first position*" etc), but they didn't see it in themselves. However, SRs and managers who could achieve a little detachment were able to perceive that the behaviour of many managers was due to the pressure being imposed on them (external attribution). Such SRs and managers were, on the whole, more understanding and co-operative. This fits with research findings from the area of attributions in organisational conflict.

"Confrontational actions which are attributed to external causes (e.g. orders from one's superiors, organisational rules or policies) are less likely to result in anger and conflict than identical actions which are attributed to internal causes (e.g. personal intentions or motives) (Baron, 1990, p187)

The management strategies used in A Division were also attributed to lack of skill on the part of individual managers.

"When you come into the office for your weekly meeting with your SM, it needs to leave you in a positive mood, not a negative mood. But that doesn't happen at the moment in the Pearl. The managers don't seem to have the skills to draw the best out of the sales representatives. They think aggression is their best weapon to achieve results."

It needs to be noted, however, that apart from the Divisional Manager, the management style was not perceived to be characterological, rather it was viewed as enculturated or due to skill deficits on the part of individual managers. There was certainly a feeling that it could be improved through training or better promotion practices.

"In the past, promotion used to be on the basis of sales ability only - they thought that if you were 125% or 150% effective, you'd make a good manager. They have since found out that this is not the case. They now take into account dedication, commitment, communication, understanding of other people and how they work."

Attributionally, therefore, the negative management style was perceived to be due to specific and temporary factors. It must be said, however, that not all managers adopted this aggressive style. I heard about (and indeed observed) managers who were

supportive, helpful and motivating, they were held in very high regard by the sales representatives

In summary, the interviews and observations unearthed a generally optimistic corporate attributional style in the Pearl A Division. Negative events, including sales failures, the high rate of employee turnover, unrealistic sales targets, the pay structure and aggressive management practices, in the main, were attributed to external factors (which, in the case of sales failures, employee turnover and management styles were also perceived to be unstable and specific). Positive events such as sales successes were primarily attributed to internal, stable and global factors. Such a corporate attributional style is supportive of the MR attributional training effects, and would have certainly contributed to its long-term impact.

B) Findings from the Attributional Coding of Interview Transcripts

A finer level of detail was obtained from an analysis of fifteen of the above interview transcripts using the Leeds Attributional Coding System. 3955 attributions were extracted from the 15 one-hour interviews, ranging from 155 to 419 attributions per interviewee, with an average of 264 attributions per interview. The attributions expressed by the sales representatives and managers were evenly divided between those pertaining to positive events (31.6%), negative events (30.6%) and neutral events (37.8%). This is rather unusual, as one would expect that, by virtue of their greater salience, attributions about negative events would be more prevalent (the availability heuristic). That they weren't in this sample may be indicative of two factors: positive events are so unexpected in the Pearl that they attract attributional processing on a scale equal to negative events, or alternatively, positive events are so important that they attract attributional processing. The information gained from the interviews and observations would lead to an endorsement of the second explanation. An enormous weight is given to success in the new Pearl, particularly sales success. Incentives are based on it, promotion is determined by it, and resignations result from the lack of it. It is logical, therefore, that positive events should attract a high degree of attributional processing in this context.

Each attribution was coded dichotomously along five attributional dimensions (stability, globality, internality, universality and controllability) producing 32 dimensional combinations. In addition to the dimensional coding, each of the 3955 attributions was coded according to speaker, agent and target. Eight classes of agent/target were extracted by the LACS judges (who were blind to the purpose of the interviews)

- the speaker (i.e. an insurance salesperson)
- insurance salespeople in general (excluding the speaker)
- Pearl Assurance company
- other insurance companies
- customers
- 'prospects' (prospective customers)
- bosses/managers/superiors
- external circumstances

The attributional content of the causes given by the sales representatives and managers for the positive, negative and neutral events was classified into ten general classes:

- 1 commission / earnings / pay / promotions
- 2 the process of selling, wanting to sell
- 3 making a sale
- 4 knowledge / experience / learning
- 5 motivation / incentive / communication skills / organisational skills
- 6 sales targets
- 7 success / good performance
- 8 failure / poor performance
- 9 personality / personal problems / coping
- 10 other

The advantage of the use of 'blind' judges in the LACS is that possible sources of bias arising from knowledge of the interviewees, the company or the purpose of the interviews is eliminated, thereby improving the reliability of the method. Inter-rater reliability for the extraction and coding of attributions in this project averaged 90%. However, I did find that it made the interpretation of the data more difficult, because in a number of cases, causes were grouped together that I would have intuitively kept

separate (e.g. the category encompassing motivation, incentive, communication skills, organisation skills) This became particularly apparent when the dimensional patterns were analysed

Standard statistical analyses were not possible with this type of data, as they do not consist of independent observations, extracted as they were from a small number of subjects (even the assumptions of chi square, for example, are violated) Therefore, an exploratory analysis of the data was undertaken The data were cross-tabulated in a number of ways to facilitate the exploration

The first outcome of note is that very few of the 3955 attributions (only 0.2%) conformed to a depressogenic attributional style (permanent, internal, global, personal and uncontrollable causes for negative events) This is to be expected in a sample of insurance salespeople The most prevalent dimensional pattern, found in 25% of the 3955 attributions, was stable-specific-external-universal-uncontrollable That is, events, in the main, were perceived to be due to external factors over which the agent had little control, which were also universal and permanent, but nevertheless specific Interestingly, there was no difference in the use of this attributional pattern with positive or negative events, suggesting the presence of a generalised cognitive style in the division¹⁴ Given the recent AMP acquisition of the Pearl, and the scale of changes (both positive and negative) that have been implemented, this pattern of attributions is understandable It indicates, I would suggest, a sense of helplessness and lack of control (which, in fact, is quite realistic - no aspect of the job has remained untouched), but that, in addition, these changes are specific to the Pearl In the majority (61%) of cases, the agent in these attributions was 'insurance agents in general' or 'Pearl Assurance', rather than the interviewee himself (9%), which suggests the use of a 'third person' technique by the interviewees

The next most common dimensional pattern used by the Pearl employees was internal-stable-specific-universal-controllable (534 occurrences) It was primarily used to explain positive events, and in 99% of cases, the interviewee was the agent of the attribution

¹⁴ The fact that this particular attributional pattern was present in 25% of causal ascriptions leads one to speculate that it was used by all subjects Of course to be firm in this conclusion, one would need to analyse separately the attributional pattern of each interviewees

This is an optimistic attributional style for positive events, as it indicates that the salespeople perceive that success will be ongoing, that it is due to them and is controllable. Such an attributional style not only enhances the expectancy of future success, it also increases self-esteem. (It was the goal of the MR programme to assist delegates to move towards this way of perceiving success if, as the interviews indicated, this were the predominant corporate attributional style in the Pearl, it is likely that gains accruing from the MR programme would be supported on the job.) Another frequently occurring attributional pattern for positive events (used in 11% of the total causal ascriptions) was external-stable-specific-universal-controllable. This pattern is similar in all respects to the previous pattern for positive events, except for the external locus of attribution. Because positive events are perceived to be stable and controllable, it is still an optimistic (i.e. motivating) style.

Perceiving positive events as stable, specific and universal is common to the three predominant attributional patterns found for positive events. According to Abramson et al (1989) and Weimer (1986a), the stability of the cause is the factor that determines future expectancies (of success, or conversely, of hopelessness). In this occupational sector, where such a high premium is placed on success, the ascription of positive outcomes to stable factors is an optimistic and motivating cognitive style. The predominance of attributions to specific factors, however, is surprising. One would predict from the self-serving bias that positive outcomes would be ascribed to global causes. Certainly this was the impression gained during the observations and interviews, particularly in regard to success in selling. However, reference to the nature of the actual causes offered for the positive outcomes indicates that, in over half the attributions, the interviewees cited motivation / incentives / communication skills / organisational skills, wanting to sell and sales knowledge or experience as the primary causal factors. This suggests that, in the main, 'positive outcomes' were perceived specifically as sales successes (not surprising given the new Pearl culture), which were viewed as a specific part of the salespersons' job, with specific causes. (Alternatively, it may be the result of a coding anomaly - more of that later.)

For negative events, in addition to the predominant pattern discussed earlier, a pattern of attributing causes to unstable-specific-external-universal-uncontrollable factors was used

in a further 12.5% of the causal ascriptions. This reflects a perception that negative events are due to factors outside the person, not in his control, which are unstable, specific and universal. It suggests a strategy of dealing with negative events by trivialising them, which, upon reflection, is consistent with the information gathered during the courses and the visits to branches. There was a strong implicit message about not wishing to dwell on failures because they 'get you down'. It is a comfortable way of perceiving negative events, but in terms of leading to the adoption of active strategies to reduce failure, it is not as good a style as one which views failures as controllable.

A further pattern of attributions for negative events was identified through the LACS coding that did not emerge in the interviews and observations. In 14% of cases, negative events were attributed to external-stable-global-universal-uncontrollable factors. Given the rate at which negative events occur in insurance selling (9 out of 10 approaches to prospective clients result in rejections, and 3 out of 4 sales presentations are unsuccessful), this cognitive style is not conducive to successful working practice. It conveys a sense that negative events are beyond the control of the individual, they are far-reaching and unlikely to change. With a high premium placed on success in this company, such a view of failure is likely to lead to feelings of hopelessness, which according to Martinko & Gardner (1982) could undermine effective functioning. Two mitigating factors, however, are that the locus of attribution is external, and the agent in these attributions is predominantly insurance salespeople in general rather than the particular interviewee. It is possible that this attributional pattern for negative events is used as a psychological device to protect self-esteem - particularly as the ethos regarding failure is so punitive in A Division. A more motivating and productive way of perceiving failure, however, would be to attribute it to specific, temporary and controllable factors.

In terms of causal content, again a pattern emerged (Table 8.1). By far the most frequently cited set of causes was the category incorporating motivation / incentive / communication skills / organisational skills. These factors were cited in 24% (933) of the attributional statements, and were used equally as causes of positive, negative and neutral outcomes. The next most common set of causes were those which focused on personality, personal problems and coping, they accounted for 17% of the total, but were

used more often to explain negative than positive outcomes. Interestingly, despite the strong feelings of acrimony that the subject of sales targets seemed to engender throughout A Division, they were cited as a cause in only 3% of the attributions, and only marginally more for negative than positive or neutral outcomes. Herein lies a strength of this method of attributional analysis. Although it does not permit statistical analyses, it does allow a degree of quantification and objectivity that is not possible with standard qualitative analyses. One would have assumed from the widespread negative feeling accompanying the discussion of sales targets in A Division, that they were a major cause of negative outcomes. Yet this was not reflected in the attributional statements.

Table 8.1 Type of Causes - Frequency Count, Row Percentage, Column Percentage and Residual

TYPE OF CAUSE	POSITIVE	NEGATIVE	NEUTRAL	ROW TOTAL
Commission, earnings, pay, promotions	63 28.9% 5.0% -5.8	86 39.4% 7.1% +19.2	69 31.7% 4.6% -13.3	218 5.5%
Selling, want to sell, try to make a sale	158 30.9% 12.7% -3.4	131 25.6% 10.8 -25.6	222 43.4% 14.9% +29.0	511 12.9%
Make a sale, contract	69 47.6% 5.5% +23.2	31 21.4% 2.6% -13.4	45 31.0% 3.0% -9.8	145 3.7%
Knowledge, experience, learning quality	186 38.8% 14.9 +34.7	94 19.6% 7.8% -52.8	199 41.5% 13.3% +18.1	479 12.1%
Motivation, incentive, communication, organisation	338 36.2% 27.1% +43.4	284 30.4% 23.4% -1.9	311 33.3% 20.8% -41.4	933 23.6%
'Targets'	38 34.5% 3.0% +3.3	43 39.1% 3.5% +9.3	29 26.4% 1.9% -12.6	110 2.8%
Success, good performance	96 70.6% 7.7% +53.1	22 16.2% 1.8% -19.7	18 13.2% 1.2% -33.4	136 3.4%
Failure, poor performance	20 9.2% 1.6% -48.5	110 50.7% 9.1% +43.5	87 40.1% 5.8% +5.0	217 5.5%
Personality, personal problems, coping	167 24.5% 13.4% -48.1	264 38.8% 21.8% +55.3	250 36.7% 16.7% -7.2	681 17.2%
Other	114 21.7% 9.1% -51.8	147 28.0% 12.1% -13.9	264 50.3% 17.7% 65.7	525 13.3%
COLUMN TOTAL	1249 31.6%	1212 30.6%	1494 37.8%	3955 100%

In summary, a pattern has emerged from the LACS analysis of the 15 interviews of a fairly optimistic attributional style for positive outcomes, with a somewhat mixed style of perceiving negative outcomes. The attribution of negative events to external, unstable specific factors is likely to preserve self-esteem and motivation, but a style in which they are ascribed to external, stable, global and uncontrollable causes, as was also found, is

not conducive to maintaining motivation and productive working practices. This raises a question, of course, as to how to interpret the variation. It was sufficient to suggest that, on an individual level, some of the sample may have had a negative attributional style. But on a global level, with such lack of consensus in the findings, it is hazardous to attempt to draw conclusions about a corporate style for negative events. As far as attributions for positive events were concerned, in the majority of cases, they were attributed to stable factors. This type of cognitive style has the effect of enhancing the expectancy of future success (Weiner, 1986a). They were also attributed to specific factors, which could indicate that the critical components of success were perceived by the interviewees to be specific to selling.

However, an alternative explanation must also be considered: that is, the preponderance of attributions to specific factors may have been an artefact of the coding system. Certainly, the LACS judges were highly experienced attributional coders, and a very respectable inter-rater reliability was achieved in this coding exercise. Nevertheless, it is possible that, because they were blind to the purpose of the study and to the particular features of the insurance salesperson's job, they may have coded certain features as specific to the job, which may be perceived as global by others (including the sales representatives themselves). Having a knowledge of the organisation and of the employees offers some insight into the meaning attached to many of the situations described by the interviewees. For example, I would have coded causes such as motivation, communication skills, organisation skills, personality etc. as primarily global. Of course, the only true way of ascertaining whether such causal factors are specific or global is to ask the actual interviewees. What I am describing is a classic example of the 'fundamental attribution researcher error' (Russell, 1982), and it is a potential weakness of any system that attempts to code the attributions of others¹⁵. It is also characteristic of the tension inherent in research that sits at the cross-roads of qualitative versus quantitative research.

C) Findings from the Attributional Style Questionnaires

Eighteen employees (including five managers) completed the two ASQs, once as them-

¹⁵ It is avoided in the Attributional Style Questionnaire by having the subject rate his/her own attributions along the three dimensions.

selves, and the second time as the company. Only two subjects viewed the anthropomorphised Pearl as a female (they both indicated that they were specifically describing the new post-AMP Pearl), and one employee couldn't embrace the concept at all (interestingly, this was a longer serving employee). The majority of the subjects were able to describe the 'Pearl person' with clarity - "30 to 40 years old, married, smartly dressed in a business suit, professional, ambitious, exceptionally well behaved, honest, enjoys socialising, and sport (mainly golf) etc" - and they didn't appear to have any difficulty completing the questionnaire in this role. The results were interesting. The composite attributional style for positive events (CoPos) for the anthropomorphised Pearl was strongly optimistic ($\bar{x} = 17.28$), which, incidentally, was same as the CoPos score when subjects completed the questionnaire as themselves. A glimpse at Table 8.2 indicates that the mean scores for the three attributional dimensions for positive events - internality, stability, globality - ranged between 5 and 6 (on a 1 to 7 scale) with the lowest mean score being for the globality dimension (5.39). This suggests that the subjects perceived the attributional style of the company to be one that ascribes success predominantly to internal factors, which are long-lasting and pervasive. These results are consistent with the outcomes from the interviews and observations, as well as from the LACS analysis, and are very supportive of the attributional training.

Table 8.2 Subject as Anthropomorphised Pearl - Means and Standard Deviations

	MEAN	STANDARD DEVIATION
Positive Events - Internality	5.84	0.75
Stability	6.04	0.78
Globality	5.39	1.04
Composite (CoPos)	17.28	2.23
Negative Events- Internality	4.55	1.38
Stability	4.64	1.38
Globality	3.90	1.69
Composite (CoNeg)	13.10	3.26

Similar to the information obtained from the interviews and observations, a somewhat optimistic attributional style emerged for negative events too (CoNeg $\bar{x} = 13.1$). Furthermore, it was more optimistic than the style found when subjects completed the ASQ as themselves (CoNeg $\bar{x} = 14.38$). The dimensional scores for the anthropomorphised company ranged on the 1 to 7 scale from 4.64 for stability, 4.55 for

locus, to 3.9 for globality (Table 8.2). Note the lower score for the globality dimension again. Is it possible that this latter low score was what was being picked up by the LACS coders, and perhaps by virtue of the restrictive dichotomous rating system of the LACS, it became emphasised in that system? The equivalent dimensional scores for the questionnaires completed as self were 4.93, 5.29 and 4.15 (Table 8.3). Interestingly, the largest discrepancy between the two sets of scores was in the locus dimension (the subjects as themselves attributed negative events more internally than they perceived the company person would). These discrepancies, together with the information gained from the interviews and observations, suggest that subjects were able to assume the persona of the company and reflect its attributional style. It seems, therefore, that the technique may have provided some access to the attributional style of the organisation. That the two sets of CoPos scores were almost identical also suggests that cognitive style with which positive events were perceived by the organisation was so strong that it shaped the attributional style of individuals. It certainly fits that, with the enormous emphasis placed on success in the Pearl, the predominant attributional style for positive outcomes is quite pervasive.

Table 8.3 Subject as Self - Means and Standard Deviations

	MEAN	STANDARD DEVIATION
Positive Events - Internality	6.00	0.59
Stability	6.01	0.81
Globality	5.28	0.95
Composite (CoPos)	17.29	1.91
Negative Events- Internality	5.30	0.60
Stability	4.93	1.24
Globality	4.15	1.27
Composite (CoNeg)	14.39	2.07

However, as mentioned earlier, the above is not a fail-safe way of concluding that the technique is providing access to the attributional style of the organisation. A second possible method is to check the consistency of the 'subject as company' questionnaire scores - the more consistent the scores, the greater the confidence with which it can be concluded that the technique is providing a measure of corporate attributional style. Perusal of the standard deviations of the 'company' results - CoPos and CoNeg, as well as the dimensional scores - indicates that in all cases, the spread of scores was greater

than for the equivalent results from 'subject as self' scales (Tables 8.2 and 8.3). This indicates that subjects responded with less consistency as the company than as themselves. It is not the pattern one would expect if a corporate style were being described.

Thus, we are left with an interesting pattern of findings which seem to corroborate the information from the interviews and observations, and to a certain extent, the data from the LACS analysis, but without the evidence to confirm that what the method is measuring is indeed a corporate attributional style.

Discussion

The aim of this small research study was to ascertain whether 'corporate attributional style' could be meaningfully investigated in an organisation, so as to be able to predict whether it would be likely to support the training effects of an attributional change programme for employees. Twenty in-depth interviews were conducted with a cross-section of newly appointed and longer serving sales staff and managers in Pearl Assurance 'A Division', using a structured interview schedule developed specifically for the project (Appendix VI). The interview tapes were analysed qualitatively for specific attributional information and repeated themes, and more quantitatively using the Leeds Attributional Coding System. As well, interviewees completed the Attributional Style Questionnaire, on one occasion adopting the persona of the anthropomorphised Pearl in an attempt to access the cognitive style of the organisation, and a second time as themselves to act as a comparison. Thirdly, observations were undertaken over a period of 18 months both within the division, and during the Managing Resilience courses.

The methods revealed interesting results¹⁶. In general, a fairly optimistic attributional style for positive events was found with each of the three methods. Such an attributional style is likely to enhance productivity and success. There is some evidence from the two sets of ASQ scores to suggest that this corporate attributional style may have shaped the

¹⁶ Obviously information from 20 interviews and 17 questionnaires cannot represent the cognitive style of the division. For the techniques to reliably and validly measure corporate attributional style, a larger proportion of the total staff of a division or company would need to be involved.

attributional style of individual employees. It is interesting to note, however, that CoPos score of the anthropomorphised company (17.27) was marginally less optimistic than the average CoPos scores of the two groups of Pearl employees who underwent the Managing Resilience training. Post-course, the average CoPos scores for these groups were 17.95 and 17.85. One would expect, therefore, that, over the long term, the effects of MR training on employees' positive attributional style would be sustained, although possibly a little dampened, in this context.

However, the same uniformity in the three methods was not found for attributions about negative events. Whilst there was evidence from the interviews and observations of a reasonably optimistic style of attributing negative situations, such as aggressive management practices, high employee turnover, unrealistic sales targets and poorer pay structure, to unstable and specific factors (with a mix of internal and external attributions), this pattern was not found to the same degree in the LACS analysis and the ASQs. The results of the ASQs indicated that subjects perceived the company to attribute negative events more to internal factors than external factors, with a tendency towards stable and specific attributions¹⁷. Predominantly in the LACS, negative events were attributed to specific and external causes, more stable than unstable, which in the main were perceived as uncontrollable. Certainly, a more pessimistic corporate attributional style than found in the other two methods. Thus, whilst the results of the three methods were not incompatible, they did not have the uniformity that was found in the attributions for positive events.

Nevertheless, there was overlap. A pattern of attributing negative outcomes to specific factors was common to the three methods. The same perceptions of lack of control and helplessness found in the LACS analysis were also detected in the interviews, induced, I would suspect, by the rapid implementation of change in the Pearl. Large scale changes had been imposed throughout the organisation, and were continuing to be introduced. For many employees, the comfortable and predictable existence they had previously enjoyed had been shattered, leading to feelings of vulnerability, particularly in the area of

¹⁷ However, the overall CoNeg score (13.1) was equivalent to the average individual CoNeg scores of the experimental and control groups after the attributional training (12.76 and 13.05), suggesting that the gains in attributional style for negative events resulting from the training would be likely to be maintained in this context.

job security This may be similar to Martinko & Gardner's (1982) notion of 'organisationally-induced helplessness', the effect of which, they suggest, is to inadvertently condition employee failure With the enormous importance placed on success in the Pearl, and the large-scale changes designed to improve success, it would be rather ironic if the psychological impact of the changes were acting to undermine their very purpose Such is the value of investigating the corporate attributional style of an organisation

8.4 CONCLUSIONS

Three methodologies were piloted in a preliminary attempt to investigate the notion of corporate attributional style The aim was to examine the construct at the three levels of cultural analysis recommended by Schein (1990) observable artefacts (in this study, through organisational stories and myths), organisational values (through observation and questionnaire), and underlying assumptions (through focused interview) A number of avenues of measurement were explored, including cognitive mapping methodologies which are commonly used to model managerial decision-making, and methods to measure corporate culture The former did not yield any promising inroads into the measurement of corporate attributional style, however, research into the measurement of corporate culture did offer some relevant techniques In a bid to move away from the traditional reliance on qualitative techniques in the measurement of corporate culture, a multi-method research strategy involving a mix of quantitative and qualitative techniques was developed to investigate corporate attributional style

An exploratory research study was conducted Numbers of subjects were small, as the purpose of the investigation was to ascertain whether the construct had meaning and could be measured The results indicated that indeed it could All three measurement methods provided valuable information about the corporate attributional style of the Pearl, but of course, much larger numbers of subjects are needed to gain a representative picture I would also suggest that none of the methods was sufficient on its own Each contributed something unique to an understanding of the attributional culture of the organisation, yet all were necessary to gain an adequate evaluation Furthermore, they each had strengths and weaknesses The use of the ASQ to measure the attributional

style of the anthropomorphised company fulfils Schem's (1990) entreaties for greater emphasis on empirical measurement of corporate culture and for the avoidance of making presumptions from observing surface phenomena. But the fact that the spread of scores was greater when subjects completed the questionnaire as the company than as themselves prevents a firm conclusion that the method is in fact accessing a distinctive and coherent corporate attributional style. Nevertheless, the results of this method were on the whole consistent with the qualitative information from the interviews and observations.

Wonderfully rich data were gained from the interviews and observations, but like any such analysis, the interpretations made of the data were subjective. Furthermore, one needs to be aware of the availability heuristic in interview and observation research: negative events are more likely to be related by interviewees than positive events. Thus, negative experiences with managers are more likely to be conversation topics among sales representatives than the more mundane occasions when managers have been helpful and supportive. And, the more common the negative events are thought to be, the more they are attributed to stable, global and uncontrollable factors. In contrast, the information that the manager has available to him/her leads to different attributional biases. SRs do not often complain to managers about their management style, so managers do not receive complete feedback about their performance. As a result, they perceive it as being less problematic than do their subordinates. Thus, when a problem is brought to their attention, it is attributed to the sales representative (few SRs experience this problem, so it must be due to the particular SR - an external, specific cause). Despite such weaknesses of interviews and observations as a method for accessing corporate attributional style, the information elicited provided a valuable framework for the other techniques.

The LACS method has much to recommend it, despite shortcomings such as the dichotomous coding of attributional dimensions and the risk of 'the fundamental attribution researcher error' (Russell, 1982). It produces a surplus of rich data which can be inspected in a variety of non-intrusive ways, thereby allowing the exploration of research questions such as the present one. It sits at the cross-roads of qualitative and quantitative methodologies, and offers a means of accessing both the surface

manifestations of an organisation's attributional culture through the analysis of company literature, as well as the deeper, more implicit culture through the analysis of transcripts from carefully constructed interviews with employees

These results indicate that corporate attributional style is a construct that has relevance in organisations, it can be conceptualised, and there is evidence to believe that it can be measured. The three methods piloted in this research provided some access to the measurement of the construct. One interesting point in terms of measurement that warrants further attention is the use of consistency of individuals' responses as a means of accessing corporate attributional style, as in the LACS method and, to a lesser degree, in the use of the ASQ to measure the anthropomorphised corporate attributional style. Potentially it involves a contradiction. On the one hand, if culture is a social process in which members of a unit share a common set of assumptions, then

“ by definition, the individual cannot provide meaningful data on culture unless his or her responses in some way converge with those of other members”
(Rousseau, 1990, p160)

Thus, according to Rousseau, in the assessment of culture, members must agree or show consensus in the description or responses they provide. On the other hand, if corporate attributional style is reflected in consistency of response, and corporate attributional style helps to shape individual attributions and attributional styles, then either a positive attributional culture in an organisation means that no one will need training, or a negative attributional culture implies that everyone will need training, but that the training is unlikely to have a sustained impact. This, of course, brings us back to the role of individual differences, in particular, individual attributional styles. As stated earlier, I suggest that a reciprocal relationship exists between personality variables and corporate attributional style. Of course, the extent to which each affects the other will be different in different organisations. Thus, it cannot be assumed that lack of individual consistency of response reflects the lack of a distinctive corporate attributional style in a particular organisation, and vice versa.

Dansereau & Alutto (1990) offer a potential solution to the above contradiction. They suggest that whatever the level of analysis in assessing organisational culture (in this case, person), data should be collected at that level and the one above it (for example, groups). In this research, therefore, data would be collected in one or more other

company divisions in order to provide a comparison of attributional culture for the one being studied. The use of a multi-method approach to the measurement of corporate attributional style is another solution. (Measuring consistency of individual response is fine, I would argue, as long as it is one of a suite of techniques.) The latter was the procedure used in this research: the unit of measurement in the interviews was divisional cognition, whereas in the LACS analysis and partly in the ASQ, the unit of measurement was individual cognition. A strength of the ASQ technique is that, in comparing the scores of the anthropomorphised Pearl against the individual attributional styles of employees, it adds a second layer to the measurement of corporate attributional style in addition to consistency of individual response.

Alternative techniques for measuring corporate attributional style might include an attributional analysis of company literature such as annual reports and reports to shareholders. However, care needs to be exercised here in assuming that a realistic profile of the corporate attributional style will be revealed: considering these documents can influence stock prices, one might expect a pattern of self-serving attributions. For example, in an analysis of numerous letters to shareholders across many industries, Bettman & Weitz (1983) found an abundance of external, unstable and uncontrollable reasons for poor performance (e.g. lower profits were attributed to unusual economic conditions), as well as internal, stable and controllable reasons for good earnings (e.g. high profits were due to the company's research and development efforts). Thus, in order to go beyond self-serving biases and gain a meaningful picture of corporate attributional style using this method, a broad selection of company literature (for both internal and external audiences) would need to be attributionally analysed. Furthermore, previously written or verbal company material could be analysed and compared with current material to gain a longitudinal measurement of corporate attributional style. A weakness of this research was that it was cross-sectional: corporate attributional style was measured at only one point in time. No attempt was made to ascertain how stable corporate attributional style is, although one would predict that, similar to the attributional style of individuals, it fluctuates across situations and time. Perhaps, similar to the findings of Burns & Seligman (1989) pertaining to individuals, it may be found that corporate attributional style for negative events is stable across many years, but for positive events it is not. This would have implications for corporate strategy, especially

in the UK where CoPos has been shown to be more strongly related to productivity and performance than CoNeg or the composite CPCN

Thus, the measurement of corporate attributional style requires a variety of methods. The challenge is to ensure that access is gained to the collective cognition of the organisation, which is more than the aggregation of individual cognitions, just as a symphony orchestra is more than the aggregation of solo performers. This requires methods that are specifically devised for (or tailored to) the purpose, and which should, ideally, go beyond adopting as the criterion of CAS a consistency of individual attributional styles.

But having measured corporate attributional style, what if it is found to be unhelpful in terms of the company's strategic direction, the performance of employees, and, of central importance to this research, the maintenance of workplace attributional training games? I would suspect that, just as organisational culture is resistant to change (McLean & Marshall, 1991), so too, is the corporate attributional style of an organisation. This is due not only to the plethora of organisational structures that act to preserve the status quo, but also to the strong investment of self which is characteristic of many senior executives in organisations. A combination of cognitive mapping and cognitive therapy techniques may offer one way of addressing unhelpful organisational patterns of thinking and behaviour. For example, assisting key decision-makers - individually and collectively - to elicit and clarify their thinking patterns and decision frameworks, including of course, their predominant way of attributing causes to organisational events, will not only raise awareness, according to cognitive mapping studies (e.g. Swan, 1994), but will often act as a stimulus to change. Cognitive therapy techniques offer a more formalised way of testing and changing attributions, and these too might be used with key post-holders. Lastly, the implementation of attributional training programmes for employees at various levels in the organisation may be warranted.

In summary, this chapter has focused on the definition, conceptualisation and measurement of 'corporate attributional style', an organisation-level construct which may influence how efficiently the results of employee attributional training are maintained on the job. A small exploratory research study was conducted, the results of which

indicated that the construct has meaning and it is worthy of measurement. Two challenges remain, however. Whilst three methods for measuring corporate attributional style have been explored, a precise way of accessing the construct has not yet been identified. Secondly, techniques to bring about corporate attributional change have not yet been evaluated. These constitute fertile directions for future research.

GENERAL DISCUSSION

Poor persistence, impaired performance and vulnerability to depression are associated with a pattern of thought in which individuals characteristically attribute failure to internal, stable and global causes, and success, in contrast to external, temporary and specific causes. This research has described how, for the first time, an attributional training programme has been employed in the occupational sphere, to help employees review their attributions for success and failure. Clinically, cognitive therapy modifies attributional style and produces enduring therapeutic benefit in a number of psychological disorders. Until now, it had not been applied to the workplace. In this research, cognitive therapy principles were uniquely combined with organisational training principles to produce the occupational attributional training programme. In addition, a new organisation-level construct, corporate attributional style, was explored in terms of its effect in facilitating or inhibiting the maintenance, on the job, of the attributional training outcomes.

This chapter concludes the research. It revisits the attributional model developed to explain deficits in psychological well-being, motivation, persistence and performance in the workplace. It reviews the occupational attributional interventions and the results of the empirical studies conducted to evaluate them. The utility of the corporate attributional style construct is considered, as well as its operationalisation and measurement. Issues arising from the research are discussed, limitations of the attributional change programmes and the research are highlighted, and future directions for research are suggested.

9.1 THE MODEL

A model should provide a framework for hypotheses about the causes of the phenomenon, and should serve as a heuristic device for the development of means of intervention (Rehm, 1977)

In so far as this is true, I would suggest that the model developed for this research has served its purpose. Developed from a combination of the Weiner (1985a), Abramson et al (1978) and Martinko & Gardner (1987) attributional theories, the model provided a framework for understanding the effects of a self-derogating attributional style at work. It accurately informed the development of the attributional intervention, and the clear delineation of the linkages in the chain allowed hypotheses to be developed and tested. The results of the evaluation studies supported the linkages in the model.

9.2 THE ATTRIBUTIONAL INTERVENTIONS

1. Optimism ABC Programme

Designed as a burn-out prevention programme for all insurance sales agents, especially new agents, the results of this evaluation failed to confirm the programme's efficacy. It did not bring about attributional change, nor did it lead to increased job satisfaction and work effectiveness, as the programme developers intended it should. Although the methodological weaknesses of the study constrain the confidence with which conclusions can be drawn about the psychological outcomes of the programme, the behavioural outcomes (sales performance and resignations) suggest that the Optimism ABC programme did not "*inoculate sales agents against the pitfalls of selling by assisting them to cope better with adversity and rejection, and thereby to increase production and career longevity*" (Foresight, 1990). If the Optimism ABC programme was in any way effective, it was likely to be with newly-appointed agents or the poorer performers¹. These conclusions are corroborated by participant reports. Many of the sales agents, particularly the more experienced ones, did not like the programme. They found it too academic and unrelated to their work, and therefore were unlikely to use the strategies on the job. Thus the programme lacked credibility as well as perceived utility for a large number of trainees. This, I would suggest, was partly due to its lack of organisational infrastructure, the insufficient emphasis on socialising delegates to the cognitive model, and the paucity of strategies linking the training with the job. Despite post-hoc attempts to include some of these critical features in the programme, little effect accrued, indicating the need for attention to such principles from the outset.

¹ The effect with these sub-groups needs to be confirmed, however

2. The Managing Resilience Programme

A number of general statements can be made about the Managing Resilience attributional retraining programme

First, the programme has been demonstrated to be effective. In both evaluation studies, significant improvements occurred in psychological health, job-related attitudes and performance (reduced quitting rate among insurance sales agents, and increased job-finding among the unemployed). Further, the benefits persisted.

Second, the programme appears to be credible and acceptable to the participants.

Third, there is reason to believe that the programme has wide applicability. The groups targeted for the studies - insurance sales agents and long-term unemployed professionals - were fairly heterogeneous, sharing only one underlying factor: the experience of repeated failure in work-related endeavours. Moreover, regression analyses failed to isolate any sub-groups (e.g. age, sex, length of tenure, education level) for whom the intervention was more or less effective. There is reason to speculate, therefore, that other groups encountering repeated failure would similarly benefit from the programme.

Fourth, it appears that the programme may serve a prophylactic role in addition to its treatment effect. Although, in general, it is difficult to engage clients in therapeutic work when they are asymptomatic (Hollon, 1984), subjects who, pre-intervention, had not experienced any work-related difficulties, and who did not report any psychological strain, not only actively engaged in the MR programme, also benefited from it. Further, the improvements in psychological health persisted, and the occurrence of work-related difficulties subsequent to the training did not result in any diminution of effect, indicating that the programme may inoculate against the psychological hazards of future adversity at work.

Fifth, the psychoeducational group treatment approach appears to offer many advantages in terms of cost, accessibility and number of participants involved. For example, compared to the face-to-face model of individual therapy often involving 12-20 hours per patient, the MR programme (two trainers giving 21 hours to about 12 trainees)

is some 50 times more efficient (though clinical cases are, of course, more difficult to treat)

Sixth, the psychological improvements accruing from the programme, and their associated behavioural outcomes (reduced quitting among insurance sales agents, and increased job-finding among the unemployed) translate into actual financial benefits. The cost of replacing sales staff (recruitment, training, business lost etc.) averages £25,000 per person. Each long-term unemployed professional who gains full-time employment saves the welfare budget approximately £14,700 p.a. and generates at a minimum £5,000 in tax paid.

Thus, it would appear that the application of attributional training and cognitive-behaviour therapy to the workplace has potential benefits for individuals, companies and society at large.

9.3 CORPORATE ATTRIBUTIONAL STYLE

In addition to the focus on attributional change at the individual level, attention was given in this research to the attributional culture of the organisation into which the training must transfer. It was argued that for enduring changes at work, the corporate attributional style of the organisation must reinforce the attributional training outcomes. A new construct in organisational psychology, corporate attributional style was defined, consideration was given to its operationalisation, and initial efforts were made to measure it. On the basis of the research, 2 conclusions may be drawn.

- 1 Corporate attributional style as a construct has meaning, and potential utility, particularly in terms of exploring its effect on an organisational change intervention, or determining whether the outcomes of an attributional training programme for employees are likely to be sustained on the job. On the basis of the small exploratory study conducted to investigate the corporate attributional style in Pearl Assurance A Division, for instance, it was found that the attributional culture, by and large, was an optimistic one, and thereby likely to reinforce the outcomes of the MR attributional training programme.

2 Preliminary attempts at operationalisation of the corporate attributional style construct suggest that it is able to be measured, although measurement ideally should involve a variety of methods, both quantitative and qualitative. The three methods piloted in this research, observations, LACS analysis of interviews, and questionnaire measurement of the anthropomorphised company, all yielded rich information, which taken as a composite, revealed a profile of the attributional culture of the division. Further research is needed, however, in gaining access to the collective cognition of an organisation, and in exploring the relationship between individual differences in the attributions of employees and the attributional culture of the organisation (particularly in terms of the implications for adopting consistency of individual attributions as a measure of corporate attributional style)

9.4 DOES THE RESEARCH PROJECT FULFIL THE CONDITIONS OF EFFECTIVE INTER-DISCIPLINARY RESEARCH ?

This research drew on the disciplines of social, clinical and organisational psychology. As outlined in the introductory chapter of this thesis, there are advantages to conducting research at the interface of a number of psychological disciplines, for example, the range of dependent variables is expanded and the boundaries of the phenomenon are further defined. However, as Taylor (1981) warns, there are also a number of potential problems

- Because the theory has been shown to be effective in one domain, there may be a temptation simply to translate the same conditions to the new domain, without taking adequate cognisance of the unique features of the new domain
- Secondly, because the domain of situations to which the hypotheses apply has not been fully defined, it may be tempting to over-generalise the phenomena. Thus,

“we need to bind our phenomena, and define the contextual factors that influence the powerfulness of the phenomenon in a given domain” (Taylor, 1981, p204)

This has certainly been a problem with the attributional style construct, which has been linked a myriad of other factors, theoretically-derived or not, to the extent that it has been described as a “velcro construct” (Peterson, 1991)

- Thirdly, the theory under consideration needs to be tightly specified to allow adequate testing and falsification

A number of steps were taken in the present research to avoid or minimise the above potential problems, including

- 1 The research took as its starting point an analysis of the occupational context in which it was to be conducted. Then, areas of potential overlap with the use of cognitive therapy in clinical contexts were noted. Next, the two sets of change strategies (organisational training and cognitive therapy) were compared and the similarities extracted. Lastly, opportunities for the application of cognitive-behavioural strategies to work-place training and development processes were developed.
- 2 The problem of over-generalisation was avoided by adhering closely to the three attributional theories underpinning the research model (Abramson et al., Wemer Martinko & Gardner), and deriving the hypotheses from them. When new dependent variables were introduced, they were theory-driven, and derived from the research paradigm.
- 3 The three attributional theories on which the research paradigm was based, as well as Beck's cognitive-behavioural therapy, are all tightly specified, for example there is a published handbook of cognitive therapy techniques

“Cognitive theories of depression generate powerful etiological and therapeutic predictions that are empirically testable ” (Alloy, 1988, pvi)

This enabled adequate testing of the model.

In working at the interface of three psychological disciplines, this thesis aimed to fulfil the conditions outlined by Ilgen & Klem (1989a) for successful interdisciplinary research in psychology

- Firstly, that the constructs and concepts from one discipline can be shown to be appropriate to another,
- Secondly, that the research in the new area contributes to the existing knowledge base about the constructs, and
- Thirdly, that the research generates knowledge that can effectively be used in organisations

Ilgen & Klem allege that much of the social cognition research (including attributional research) adapted from social psychology to organisational psychology has stagnated at the first level, that is, it has offered little more than a demonstration that the constructs can be applied in organisational settings. Such demonstrations, they suggest, although useful, often fail to advance the knowledge base in either discipline. So how did this research fare?

1 I would propose that, as a result of the experimental studies, we now know that attributional retraining, hitherto used only in clinical, educational and social contexts, can be successfully employed in the occupational sphere. Furthermore, it has shown that cognitive-behaviour therapy principles and strategies can be applied, with fidelity, to an occupational context.

2 In terms of contributing to the existing attributional knowledge base, a new theoretical model has been derived from an integration of three existing attributional theories, which provides a framework for understanding attributions in the world of work. Tests of the model have confirmed its hypothesised linkages. Secondly, the range of dependent variables associated with the attributional style construct has been expanded (in a theory-driven fashion). Thirdly, a new domain-specific attributional style questionnaire has been validated, and fourthly, further evidence has been gained to support the hypothesis that attributional change is an active therapeutic mechanism in cognitive therapy. Fifthly, an alternative explanation has been suggested for the discrepancy in US / UK findings regarding the correlation between attributional style and productivity², viz, previous research has focused on main effects to the neglect of the interaction effects of CoPos or CoNeg with other psychological variables (see also Corr & Gray, 1995a). Lastly, a new attributional construct 'corporate attributional style' has been introduced, defined and operationalised.

3 How does the research add to practice in organisations? Typically, interventions to reduce employee turnover in organisations have focused on selection procedures, such as realistic job previews, or on features of the job, for example job redesign or participative

² In the US, attributions for negative events were found to be correlated with these work indices, whereas in the UK, significant correlations were found with attributions for positive events.

decision-making. These studies demonstrate that turnover can be significantly reduced through a training intervention, and specifically one that aims to change attributional style. They also demonstrate that, in terms of promoting reemployment, an attributional training programme is more effective than programmes which concentrate on equipping unemployed people with job-seeking or job-related skills (the usual form of assistance offered). Further, it has been demonstrated that a psychological training programme based on social skills strategies is equally effective as the standard training programmes offered to unemployed people in the UK. Thirdly, employee psychological health is taking an increasing profile in organisations, with recent court cases pertaining to work-related stress and ill-health. These results indicate that attributional training interventions offer a viable alternative to interventions such as work-place counselling for improving the psychological health of employees.

9.5 ISSUES ARISING FROM THE RESEARCH

A number of interesting theoretical issues have emerged from this research. Two in particular warrant discussion.

1 Attributions for failure situations

The RLH model specifies that an optimistic attributional style involves internal attributions for successes and external attributions for failures. I chose to follow this line in the attributional intervention. However, it became apparent during the research that an alternative approach to failure attributions was more acceptable in organisations. This approach, which appears to have an equally positive effect on attributional style, allows either internal or external attributions for negative events, *as long as* the failures are viewed as unstable and specific (e.g. Abramson et al., 1989). For example, failure due to poor strategy or lack of effort (internal, unstable) allows the possibility of future success through a change of strategy or renewed effort. External attributions for failures lessen the feelings of responsibility and self-blame, but on the other hand, can reduce a sense of future control by the individual (Layden, 1982), and cause irritation in managers who perceive it as a reluctance on the part of an employee to take responsibility. Thus, attributing failure to either external or internal unstable causes is acceptable, and both

have been shown to be effective in bringing about change in persistence and performance (Dweck, 1975) The decision must depend on the situational information

2. Is the MR programme merely a training in illusions ?

"Many prominent theorists have argued that accurate perceptions of the self, the world, and the future are essential for mental health. Yet considerable research evidence suggests that overly positive self-evaluations, exaggerated perceptions of control or mastery, and unrealistic optimism are characteristic of normal human thought. Moreover, these illusions appear to promote other criteria of mental health, including the ability to care about others, the ability to be happy and contented, and the ability to engage in productive and creative work" (Taylor & Brown, 1988, p193)

Citing a great deal of research evidence, Taylor & Brown (1988, 1994) contend that rather than being distinguished by accurate perceptions of reality, mental health is characterised by biases and distortions that enhance self-esteem, maintain beliefs about personal efficacy and promote an optimistic view of the future. They suggest that three positive illusions in particular are important for psychological health: those concerning the self, the world and the future. Not only do these illusions promote traditional criteria of mental health such as the ability to engage in motivated and productive work (particularly relevant for this research), happiness and care for others, they are especially important in conditions of adversity as a buffer to depression and demotivation. Further, individuals who are depressed or low in self-esteem consistently display an absence of such illusions (Taylor, 1983)

Herein lies a dilemma. The MR programme, based in part on a clinical paradigm (the RLH model), and utilising clinical strategies too, takes as its core a construction of mental health that was derived from research on abnormality. In this tradition, normal functioning is deduced from pathological functioning, and is conceptualised in terms of contact with reality, i.e., accurate perceptions of one's self, one's circumstances and the future. Therapeutic interventions are designed to assist individuals to enhance the realism of their perceptions. This is the philosophical basis from which the MR programme springs.

Yet, in cognitive and social psychology, mental health and normal functioning is defined as involving distorted perceptions positive biases about the self, one's control and the future. Clearly, accurate perceptions of reality in other areas are necessary for normal functioning, yet, concerning the self, the world and the future, positive illusions are more adaptive. Such illusions are particularly important, it has been shown, under conditions of adversity.

This is precisely the domain in which the MR programme operates. Individuals are invited to attend the programme who are suffering from failure or other forms of adversity. The intervention specifically aims to enhance the client's view of themselves, their world and their future through attributional change. The aforementioned illusions map precisely on to the three attributional dimensions on which the MR intervention is built, viz internal/external (the self), global/specific (the world) and stable/unstable (the future).

Is the MR programme therefore merely a training in illusions? Are we "*conspiring to protect individuals from the harsher side of reality*" (Taylor & Brown, 1988, p201) by encouraging them to ignore their limitations, to persevere at uncontrollable tasks, to entertain false hopes for the future?

No. The aim of the MR programme is to help individuals to appraise situations more realistically, particularly the way in which they are attributed. This may entail seeking a broader view of the situation to encompass additional views which previously, due to processes of socialisation for example, may not have been considered. However, in considering alternative explanations for an outcome, little benefit is gained if there is no evidence to support them. This is the essential difference between the MR programme and 'the power of positive thinking' which, I would suggest, is often no more than a training in illusions. The MR programme is intended for use alongside programmes to develop employees' skills and abilities. It teaches employees to recognise their skill or strategy deficits and take action to redress them, to become aware of and monitor their own cognitions and the impact they have on their work, and to perceive the future realistically. Cognitive therapy provides the tools to do this.

Taylor & Brown add further support to this conclusion. They acknowledge that a degree of contact with reality is essential to accomplish the tasks of everyday life. If errors and biases dominated all inferential tasks, they suggest, it would be difficult to understand how humans could learn.

"It is important to remember that people's self-evaluations are only one aspect of judgements about a situation, and there may be non-ego related information inherent in situations that offsets the effects of illusions and leads people to amend their behaviour" (p204)

They cite the example of an individual who, having done poorly at a job, may fail to interpret negative feedback as evidence that he is doing a poor job. But he may come to feel that he does not like the job, his boss or his co-workers and he may leave. Other countervailing forces may include knowledge of legal ramifications, fear of reprisals or conscience. The MR programme, which trains individuals through cognitive therapy techniques to veridically assess situational information and decatasrophise negative events, is indeed more than a training in illusions.

9.6 LIMITATIONS OF THE RESEARCH

Several weaknesses can be identified in this research. They fall into two groups: those pertaining to the attributional change programme, and those pertaining to the research studies.

Limitations of the Research Studies

a) *"After some 25 years, learned helplessness research has seemingly entered a comfortable but crystallised state"* (McKean, 1994). McKean makes 3 criticisms about learned helplessness research. Firstly, most studies seek relationships between pessimistic attributional style and an outcome measure often selected from a single domain, be it behavioural, cognitive or affective. Secondly, most studies have not addressed the expectation of uncontrollability as a risk factor for helplessness - they rely on pessimistic attributional style as the sole risk factor. Thirdly, they fail to address the role of attributional style for both positive and negative outcomes as risk factors for helplessness.

This research was not guilty of the first and third charges. Outcomes were measured in a variety of domains including participant reaction, cognitive, affective, behavioural and performance. Furthermore, attributional style for both positive and negative events was assessed. However, the expectation of uncontrollability was not assessed. Here I was not alone. As McKean (1994) points out, most learned helplessness studies have not addressed the expectation of controllability as a risk factor for helplessness. They suggest that the reason may be methodological: the lack of instruments to measure the construct. (As was reported in Chapter 2, Peterson & Seligman, 1984a, deliberately chose to focus their research on measuring attributional style, because of the lack of a valid measure of expectations of control.) Nevertheless, given the centrality of the control construct in both the Abramson et al. and Weiner theories, greater emphasis was needed in this research on its conceptualisation (is it a causal dimension or an outcome?), and on searching for or developing an adequate measure of the variable³

b) Considering the theoretical links between attributional style and depression, as well as the predicted improvements in psychological health resulting from the attributional intervention, a before and after measure of health service usage would have strengthened the studies. Many of the subjects reported experiencing chronic psychological strain prior to the programme, and it is likely that treatment was sought. In addition to the measure of psychological strain by self-report, therefore, the studies would have benefited from an assessment of health service usage (which would also have offered a more objective measure of subjects' psychological health than a self-report instrument)

c) Consistent with the scoring of the Attributional Style Questionnaire, the three attributional dimensions were considered as additive composites in this research. However, researchers such as Abramson, Dykman & Needles (1991) and Carver & Scheier (1991) maintain that an interactive combination of dimensions is implied in RLH theory, in that depressive attributional style is characterised by internal *and* stable *and* global attributions for negative events, that is, "It's me, it's going to last forever, and it's going to affect everything I do". Thus, the subject needs to be above a certain cut-off point on *all* of the variables to have a depressive attributional style. Similarly, the

³ McKean suggests his scale provides a valid measure of the variable

hopelessness revision of RLH theory specifies that an attribution for a negative event must be internal *and* stable *and* global for lowered self-esteem to ensue (Abramson et al., 1989). Alternatively, Peterson (1991) maintains that an interactive combination of dimensions is not necessary. When he tested five samples using a product term of internality, stability and globality entered into a regression equation to predict Beck Depression Inventory scores, in no case did the product add significantly to the variance explained. Considering that attributional style was the central construct in this research, an exploration of the dimensions in interactive combination as well as the normal additive composites would have been an interesting research question to have included in the project.

d) The numerous constraints imposed by the occupational context in which the research was set reduced the power of the studies and the conclusions that could be drawn from them. For example, the company's decision to use a no-intervention control group (rather than a waiting-list or alternative treatment control group) in the first experimental study introduced a number of potential sources of error in this study, not to mention the huge problems of sample attrition. Compromises were also imposed. This was especially the case with the activity data in each study. Insufficient experimental control could be imposed on the gathering of these data, reducing their validity in some instances. And then there were, mid-study, the industrial disputes, the changes of company leadership (and therefore strategy) and the lack of co-operation concerning data to be supplied from central sources. All of these factors diminished the experimental rigour of the studies.

Limitations of the Managing Resilience Programme

a) The MR intervention would have been strengthened by a greater emphasis on attributional antecedent information. Although cognitive therapy techniques such as searching for evidence and generating alternative explanations help to augment situational information or increase its salience, the primary focus for change in the MR programme is on the attributions themselves rather than the antecedent information used to formulate them. There is no explicit teaching about the perception and processing of consensus, consistency and distinctiveness information, nor on the use of such

information to check the accuracy of attributions. Only implicitly are clients taught to examine their processing of attributional information. For example, evidence-gathering techniques for the purpose of challenging and changing faulty thinking are taught as part of the general fabric of the programme. In the insurance version of the programme, the use of videotaped interviews with other sales representatives in the company describing their handling of difficult work situations introduces the notion of consensus information. In the job-seeking version of the programme, the exchange of consensus information with others who are also relatively isolated and experiencing similar difficulties is encouraged. However, the MR programme would be strengthened by more explicitly helping clients to increase their awareness of antecedent information, to examine their uses of consensus, distinctiveness and consistency information, and if necessary make corrections. The programme would also benefit from a wider coverage of the cognitive biases and judgement errors found in lay peoples' reasoning, such as the self-enhancing bias and the actor-observer bias, not because, as Hayes & Hesketh (1989) claim, they are a source of emotional distress, but in line with Taylor & Brown's position that they are characteristic of normal reasoning (Taylor & Brown, 1988).

b) Although additional strategies to those outlined in the CBT protocol were incorporated into the MR programme to facilitate maintenance and generalisation of effect, they may not have gone far enough. It is true that 65% of the originally low-performing insurance subjects were at or above the company average two years after the intervention, however, one must not be complacent about the other 35%. Ludgate (1994) draws attention to a typical lack of emphasis on relapse-prevention techniques in cognitive-behavioural treatment for depression, and from a systematic review of the literature, suggests a number of strategies to enhance relapse-prevention, which he claims should be implemented throughout cognitive-behavioural interventions and not just in the final stages of treatment.

A post-hoc check of the MR programme indicated that several of Ludgate's recommendations are in fact incorporated into its fabric. Internal attributions for change are promoted throughout the programme, activities are designed to promote overlearning, homework activities are designed to facilitate the application of course strategies to work situations, a six-week maintenance programme for use after the

completion of the programme is given to each delegate in the final session accompanied by a discussion of the need for and benefits of its use, delegates develop their own action plans to ensure continued application and use of the programme strategies beyond the completion of the programme, potential obstacles to the implementation of the action plan are delineated and 'emergency plans' are developed

However, despite these efforts, it is now clear that several other strategies to promote maintenance and generalisation could have been incorporated into the MR programme. Delegates could have been more systematically educated about maintenance from the beginning of the programme. Secondly, they could have been assisted to recognise early warning signs, as well as to anticipate and plan for high-risk situations through rehearsal and practice. Thirdly, more than incidental emphasis could have been placed on enlisting the support of significant others to modify the environment, and to reinforce new responses. This is especially important in an organisational context.

9.7 FUTURE DIRECTIONS

Whilst the results of the studies in this research project have been encouraging, a number of research issues remain

1 The MR programme was conducted in a group format for this research, its efficacy has yet to be evaluated with other formats and modes of delivery. For example

a) There is every reason to believe that the programme is adaptable to an individual format. After all, cognitive therapy, on which it is based, is primarily delivered as individual therapy. Further, there were a small number of occasions during the research project when a participant missed a group session and was given the session on a one-to-one basis to allow effective participation in the next group session⁴. Although this worked without any apparent problems, a properly controlled empirical comparison of the group format with an individual format is necessary. It may well be, for example, that the consensus information provided by a group context is more important for

⁴ This was necessary because the MR programme operates in a structured sequence, each session building on the previous one.

attributional change than the additional personal attention afforded by a one-to-one intervention

b) There are a number of reasons to suggest that a computerised version of the MR programme might also be effective. Recently in the clinical domain, innovative computer-administered behaviour therapy and cognitive-behaviour therapy programmes have been developed, and shown to be as effective as face-to-face therapy in the treatment of a number of psychological disorders (Ghosh & Marks, 1987, Selmi et al., 1990). Computerised forms of psychotherapy are also time-efficient, and there is some evidence to suggest that when problems are of a sensitive nature, clients may prefer the computer to personal contact (Parkin et al., 1995). Certainly, the studies conducted to date have not reported any client opposition, and drop-out rates have been no higher than with face-to-face therapy. Computer-based training is being increasingly used in organisations for staff development. Many organisations are turning to it because it is able to individualise the learning experience, and is rapidly responsive to business demand (Fennell, 1995). Computer-administered programmes in general have many advantages. In addition to their positive results, they are cost-effective (requiring little additional investment of funds beyond initial development expenses, and minimal professional input after the first session), they can be used to assist with assessment/diagnosis, and they facilitate the collection of outcome data. They also have in-built flexibility which face-to-face programmes do not possess. For example, they allow individuals to work at their own pace and, in the organisational sphere, they enable employees to undertake training in their place of work (rather than travelling to a training venue), which also facilitates the transfer of training to the job. Thus, computerised treatment/training programmes offer an effective and viable alternative to face-to-face programmes. Given all these factors, it needs to be asked whether the MR programme could be adapted to a computer-administered format, and whether it would be as effective as the face-to-face version. Certainly, its structured approach would lend itself to such an adaptation.

2 Although it has been demonstrated that the impact of the MR programme is more than just the effect of non-specific factors, the specific active ingredient of the programme has yet to be identified.

“To say that something has worked (or failed) without being able to specify what it was that worked undermines the replicability criterion of scientific research. A treatment or intervention that is allegedly effective cannot be reproduced if its essential characteristics cannot be determined and evaluated” (Greenberg & Pinsof, 1986, p5)

The next step, therefore, is to assess the relative contribution of the various programme components and to isolate the active therapeutic ingredient(s). Is it attributional change in particular, or the more general cognitive therapy processes, such as isolating and challenging unhelpful thinking? Perhaps the behavioural techniques of goal-setting or problem-solving are the essential elements which cause the improvements, or maybe it is all of the above in interaction? The question remains unresolved in the clinical domain as well. *“The effective ingredients in cognitive-behavioural therapy have yet to be identified” (Marks, 1994, p1072)*

The MR programme needs to be dismantled, so that the critical elements which bring about the improvements can be isolated and tested. Then the extraneous elements in the programme can be eliminated. Thus, the full programme needs to be compared with a version of the programme consisting only of the behavioural components and a version consisting only of the cognitive elements in order to ascertain initially whether the effective therapeutic ingredients are broadly behavioural or cognitive. If cognitive, a more fine-grained analysis is necessary to ascertain whether it is attributional change in particular, or the more general cognitive strategies of monitoring automatic thoughts, isolating and challenging unhelpful thinking.

Alternatively, the effective ingredients could be elements shared by both cognitive and behaviour therapies, but not by other forms of psychotherapy. Rehm (1984), for example, notes that a number of cognitive-behavioural therapies, such as Beck's cognitive therapy, Lewinsohn's behavioural therapy, and his own self-control therapy, share several key components which, he suggests, may be the critical element in their effectiveness, rather than the validity of the theories on which they are based. First, these programmes each have a clear, concrete rationale, which is explicitly taught to the participants such that they learn an alternative way of conceptualising their problems. Second, they are relatively structured: the rationale translates rather directly into cognitive behavioural action strategies. Third, they each involve an instigation to

change. Considerable emphasis is placed on homework assignments to practice aspects of the therapy in a relatively structured fashion between sessions in actual life experiences. Fourth, each programme provides relatively explicit progress feedback. Various self-monitoring records or logs, activity schedules, and thought records are used by the client.

The MR programme shares these core elements. It could be argued that these elements comprise the active therapeutic mechanisms in both cognitive and behavioural therapies, and by extension, in the MR programme. A carefully designed and executed dismantling study is therefore needed to tease out the effect of each of the elements. The development of a computerised version of the MR programme would provide an efficient way for the programme to be dismantled and the components to be evaluated. Elements can be added and subtracted, and the outcomes compared. As a future prospect, this course of research has a great deal of appeal.

3. Contrary to the RLH theory on which it was based, the Optimism ABC programme was designed as a general "inoculation" programme. Yet the results of the evaluation of this programme (Chapter 5) did not demonstrate its efficacy in this regard. The MR programme, in contrast, was designed specifically for individuals who were experiencing adversity (the stressor in the diathesis-stress component of the RLH theory), and the evaluation was consistent with this model. However, there were some indications that the programme also performed a prophylactic role. Certainly, in situations involving high psychological risk (such as repeated failure), there are advantages for a prophylactic programme to prevent the development of symptoms such as those predicted by the models of Weiner, Abramson et al., and Martinko & Gardner. A full evaluation of the prophylactic potential of the MR programme would provide an interesting and useful study.

4. The theoretical model designed for this research describes the development of two negative attributional cycles, the first resulting from the employee's attributions for work events, the second from the manager's attributions about the employee's behaviour. The two cycles interrelate, and can lead to a downward spiral of hopelessness and failure on the part of the employee. A number of points of intervention

into the negative cycles were explored in chapter 4. One intervention was developed for this research, the MR attributional training programme, and it focused on helping employees to assess and modify their attributional style. Interventions into the second part of the cycle, managers' attributions of employee behaviour, are the logical next step. In particular, the development of a modified version of the MR attributional training programme for managers would be useful, to help them to become aware their own attributional styles and biases, and to appreciate the effects of their attributions on their performance ratings, motivational and feedback techniques and on the attributional styles and behaviour of their employees.

5. Lastly, further research is needed into the corporate attributional style construct. The concept has been defined and conceptualised. It has been demonstrated to have utility in terms of providing information about an organisation's psychological functioning and productivity, and particularly in terms of ascertaining how efficiently the effects of workplace attributional training are likely to be maintained on the job. Moreover, preliminary attempts at operationalisation indicate that the construct can be measured. Two challenges remain. Whilst three methods for measuring corporate attributional style have been explored, a precise way of accessing the construct has not yet been identified. In particular, the relationship between corporate and individual attributions needs further investigation. Secondly, techniques to bring about corporate attributional change have not yet been evaluated. These constitute fertile grounds for future research.

9.8 SUMMARY AND CONCLUSIONS

This thesis has explored the mechanisms of workplace attributional change. It commenced with a description of attribution theory in social psychology and its contribution to clinical and occupational psychology. This led to a consideration of two diverse systems of change which were to provide the basis for the occupational attributional training programme: cognitive behaviour therapy and organisational training and development. Next the research paradigm was developed. Based on the attribution theories of Weiner (1986a), Abramson et al (1978) and Martinko & Gardner (1987), it was designed to provide an explanatory model of the dynamics of attributional processes.

in the workplace, and their effects in terms of a downward spiral of hopelessness and failure. It led to the development of an intervention model. Two workplace attributional change programmes were evaluated in the experimental studies that followed. The first was designed by Martin Seligman and Foresight Inc. Based on cognitive-behaviour therapy techniques, the programme did not, however, have an organisational underpinning, and despite post-hoc attempts to rectify some of its shortcomings, the results of the evaluation were not outstanding. The second attributional change programme, the Managing Resilience programme, was developed for this research project. Its development was described and its efficacy was demonstrated in two experimental studies employing samples experiencing repeated failure: insurance sales agents and long-term unemployed professionals. A new organisation-level construct, corporate attributional style, was next introduced, and issues of meaning and measurement were explored. Finally, issues arising from the research were discussed, the effectiveness of the project in terms of interdisciplinary research was considered, the limitations of the research were highlighted and recommendations were made for future research.

This leads to one final consideration: what was the primary contribution of this research? To my knowledge, this is the first time that attributional change programmes have been employed in the occupational sphere, and the first time that cognitive-behaviour therapy techniques have been extended to this domain. Moreover, they were successful.

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APPENDIX I

COURSE REACTION FORM

1 How did you come to be on the course? <i>(own choice, someone's recommendation, other)</i>
2 What were your prior expectations of the course?	.. .

3 How do you think this course has been in terms of	Excellent	Good	OK	Poor
a) Fulfilling its overall aim?				
b) Meeting your particular needs?				
c) Its relevance to your job search?				
d) Giving you useful information?				
e) Its pace and length?				
f) The delivery of the training?				
g) The opportunity given to ask questions?				
Taking everything into account, how would you rate the course?				

4 a) Was any topic covered in too much detail?
b) Was any topic covered in too little detail?
c) Was any topic missing altogether which you think should have been covered?

	Excellent	Good	OK	Poor
5. How would you rate the course environment? <i>(size and appropriateness of room, facilities, etc)</i>				

6 Was there anything that prevented learning taking place?
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7 Any additional comments or suggestions?
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*APPENDIX II***PRUDENTIAL OPTIMISM SALES TRAINING****FOLLOW-UP PROGRAMME**

In order to gain maximum benefit from the P O S T programme, it is necessary to integrate the skills learned during the course into your working day. To facilitate this transfer on to the job, a six week programme has been devised.

The programme forms part of your normal sales activity analysis - daily planning to ensure sufficient activity to reach your weekly goals, as well as daily/weekly monitoring of progress (as per your Prufax).

An additional component of the activity analysis will be to monitor your beliefs and expectations about your sales activity (as you know, they can have a profound effect on performance). The Personal Variance Analysis form has been provided to assist you in this regard.

Personal Variance Analysis Form

This form has been designed to be used with the Prufax Weekly Progress Diary. In fact it is an extension of it.

You complete the planning section of the Progress Diary weekly in advance (using Graded Task Breakdown where necessary to make a task more manageable), and then the progress section to monitor your daily activity noting which activities were successful and which not so successful.

As well, you monitor your thoughts and beliefs about those activities (particularly the unsuccessful ones), first by thinking why the activity was successful/unsuccessful - that is, its **CAUSE** - then providing **ALTERNATIVE EXPLANATIONS** for the outcome, and finally by looking for **EVIDENCE** for your explanations. Exactly how we have practised doing it in the P O S T course!

Link With Weekly Sales Meeting

Just as you discuss your planning and progress with your Sales Manager at your weekly sales meeting, this additional component of your activity analysis will also be linked in with the normal weekly sales meeting.

(If you don't have a weekly sales meeting, your Manager has been asked to review this activity with you on a weekly basis)

Like any new skill to be mastered, it is important that it is practised regularly

Finally, after each weekly sales meeting, you are asked to send a **photocopy** of your completed Personal Variance Analysis - together with a photocopy of the page of the Prufax to which it refers - to me **Mark it CONFIDENTIAL**

You may send it to me through the Prudential internal mail (in which case send it marked to my attention to the Training Research and Development Department of the Pru at Welwyn Garden City) or alternatively to my office, address below

This last step is important - it is the only way I can monitor the follow-up programme, and provide assistance should it be warranted

I will be contacting you again in six weeks time (to see how you are going and asking you to fill out another questionnaire) In the meantime, please feel free to contact me for any assistance if you are having trouble

Don't forget to also contact your P O S T colleague for support and advice

Judy Proudfoot
Department of Psychology
Institute of Psychiatry
De Crespigny Park
Denmark Hill
London SE5 8AF

APPENDIX III



**PEARL
ASSURANCE**

CENTRAL WEST, 4TH FLOOR, 320 RUISLIP ROAD EAST, GREENFORD, MIDDLESEX UB6 9BH
TELEPHONE 081-575-9900
DISTRICT MANAGER MR P SINCLAIR

Mr. E. Peek,
Pearl Assurance PLC.,
c/o, White House Hotel,
27, Upton Road,
Watford,
Herts.
WD1 2EL.

Your Ref

Our Ref PS/HK

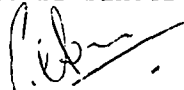
Date 3.3.93

Dear Eddie,

I write to say how pleased I am with the results from the A.B.C. of Optimism Course. As you know I had 8 Sales Representatives on this course in September '92 and I have noticed a marked improvement in 6 of them. I have 7 Sales Representatives on the present course and 6 of these are already showing signs of improvement.

I would be grateful Eddie if you would pass my thanks onto Miss Proudfoot and if further courses are to be arranged would you please let me know because I have other Sales Representatives who I would like to invite along.

Yours sincerely,



P. Sinclair,
District Manager.

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(Members of which are members of Lautro and/or IMRO) only for the purpose of advising on and selling
life assurance and investment products that bear the Pearl name

Pearl Assurance PLC Registered in England No 1419
A member of the Pearl Group and manager of the UK sub-fund of AMP
Registered Office The Pearl Centre, Lynch Wood, Peterborough PE2 6FY
A Member of Lautro, IMRO and the ABI



PEARL
ASSURANCE

WALDEN COURT, PARSONAGE LANE, BISHOPS STORTFORD, HERTS CM23 5DB
TELEPHONE 0279 508009
DISTRICT MANAGER MR K BUCKLAND

Mr J. McDonald
Divisonal Centre
Pearl Assurance
7th Floor
450 High Road
Ilford
Essex
IG1 1UG

Your Ref

Our Ref
KB/AK

Date
26 October 92

Dear Jim

RE MANAGING OPTIMISM

With reference to your letter dated 23rd October 92. I would very much like to attend one of these courses as I feel they are a very important part of running a succesful division in the future years ahead.

My views of those people who have recently attended the optimism course from my district is first class. I have without a doubt seen a dramatic turnround in production.

I have also seen a very much improved attitude towards there job.

Each Sales Rep I have interviewed regarding the optimism course are full of praise and support-keep up the good work.

Yours sincerely



Kevin Buckland
District Manager

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AN AMP COMPANY

*APPENDIX IV***TIME LINE: EXPERIMENTAL STUDY 3**

January 1994	First series of 7-week courses commenced (2 Managing Resilience, 2 Social Support courses)
February 1994	Second series of courses commenced (2 MR, 2 Control)
March 1994	Third series of courses commenced (1 MR, 1 Control)
May 1994	Fourth series of courses commenced (2 MR, 2 Control)
June 1994	Fifth series of courses commenced (1 MR, 1 Control) Series 1 courses 3-month follow-up and refresher courses Series 2 courses 3-month follow-up and refresher courses
September 1994	Series 3 courses 3-month follow-up and refresher courses
October 1994	Series 4 courses 3-month follow-up and refresher courses Series 5 courses 3-month follow-up and refresher courses

APPENDIX V

JOB-SEEKING LOG

Note each job-searching activity in which you engaged this week
Please give details such as where the activity took place, when and with/to whom and how long it took Keeping this log regularly will help both you and us to monitor your progress There will be an attractive incentive scheme run for those who complete and return their logs

Examples:

- ◆ Following up a job advertisement (e.g. requesting details, application forms)
- ◆ Making a speculative approach to a potential employer
- ◆ Visiting a professional agency

- ◆ Attending a job interview
- ◆ Preparing a job application
- ◆ Researching (e.g. developing a list of potential employers, reading about companies, making enquiries)
- ◆ Meeting with a personal or business contact

Week starting	JOB-SEEKING ACTIVITIES	No of letters	Phone calls	Meet-ings	Job Inter-views	Hours
Mon.						
Tues.						
Wed.						
Thur.						
Fri.						

Return this completed and signed log to Saskia Demeyere, Psychology at Work,
FREEPOST LON4003, London NW1 0YR in the envelope provided.
No stamp is required.

Name .

Week

Cut

Please cut off and keep this corner for your records and to take part in the incentive scheme

Name
Week.

*APPENDIX VI***CORPORATE ATTRIBUTIONAL STYLE****STRUCTURED INTERVIEW****INTRODUCTION**

- 1 How long have you been working for the Pearl?
- 2 What is the correct title of your present position?
- 3 How long have you been in this position?
- 4 Where are you located?

THE COMPANY

- 5 What makes the Pearl distinctive / different from other companies in the industry?
- 6 Have you worked in other insurance companies? If yes, which, when, why left? If no, do you have friends who work in other insurance companies?
- 7 How is that company different from the Pearl?
How is it similar to the Pearl?
- 8 What would they consider normal that would be unheard of in the Pearl, and vice versa?
- 9 What the main differences between insurance companies?

THE DISTRICT

- 10 What makes this district different from others in the Pearl?
Manager / geographical location / tradition / ?
- 11 What determines the difference between districts?

PROMOTION

- 12 What do you think are the most important factors that currently determine promotion for people like you in the Pearl?

- 13 What do people at the top take note of?
- 14 What things do people get rewarded for in this organisation? What else?
- 15 Does it differ for people in different positions, e.g. managers, sales reps, office clerks etc.?
- 16 To what degree the following factors contribute to career progress in the Pearl?

	Not At All	Only Slightly	A Little	Moderately	A Great Deal
Personal skills and abilities	1	2	3	4	5
Hard work and effort	1	2	3	4	5
Outside circumstances	1	2	3	4	5
Luck	1	2	3	4	5

SALES REPRESENTATIVES

- 17 What do you think are the key components of successful selling?
- 18 How would you describe a particularly effective week for a Sales Rep?
- 19 What factors do you use to judge that it was effective?
- 20 Now an ineffective week - how would you describe one, and why would it be ineffective?
- 21 What do you think is needed when Sales Reps hit a rough patch?
- 22 What is the difference between those who cope with rough patches versus those who go under?
- 23 What do you use to beat the rough times?
- 24 What else would help?
- 25 What is the difference between successful and unsuccessful Sales Reps?

TURN-OVER

- 26 As we all know, quite a few Sales Reps have left the company in the last year. I'm interested in why you think they left.
- 27 Think about those you knew personally. Were any of them successful? If yes, why did they leave?
- 28 What was it about them and the way they went about their work that was effective or ineffective?

- 29 In terms of the existing sales team, do you know any who you would say are 'at risk' of leaving?
- 30 If we compare these people with those who are unlikely to leave, what are the main differences?
- 31 What do you think is the main cause of the turn-over in Sales Representatives?
Are there any other important causes?
- 32 Is there anything that could/should be done about the rate of turn-over? (E.g. selection, training, job design, travel, rewards etc.) What specifically should be done about the rate of turnover?

EXPLANATIONS FOR PERFORMANCE

- 33 How does a typical Pearl salesperson explain the reasons for/ the causes of their successes?
The causes of their failures? What did they say their failures are due to?
(If not sure, ask respondent about self "Presumably you have an average share of successes and failures, what do you see as the causes of your successes, your failures?")
- 34 What does a typical Pearl salesperson do when faced with difficulties?
- 35 What does the Divisional Manager expect you to do when you are faced with difficulties at work?

GENERAL

- 36 Can you think of a story or joke about your company that you have heard or told recently, which says a lot about it? What is it?
Imagine that you had to explain the significance of the story to a newcomer who knows nothing about the culture of the Pearl. What would you tell them?
- 37 Most organisations have unwritten rules. What are the unwritten rules in the Pearl?
Can you think of a recent incident in which the rules were broken or disrupted?
What happened?
What were the consequences?
Did any new rules arise from the incident?
- 38 You have told me about how the Pearl is different and distinctive. Over the years, who or what has shaped the Pearl to make it what it is today?
- 39 What are the most important changes that have occurred in the Pearl in recent years as far as you are concerned?
Are they for the better or worse? Why?

40 In general, do you think things are getting better or worse in the Pearl? How? Why?

CONCLUSION

41 Is there a person or group of people who you see as typically Pearl?

Can you describe them?

42 Can you envisage the Pearl as a person?

Is the Pearl person male or female?

What age?

Married / single?

What clothes does he/she wear?

What does his/her general appearance look like?

What is his/her behaviour like?

What are his pastimes?

Please fill out this questionnaire as that Pearl person would.

Demographic Details

Age

Marital Status Married 0

Single 1

Other 2

Sex Female 0

Male 1

Number of years education

