

Positive Emotions at Work:
A Study on Home Care Workers for Older People

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Abstract

This thesis takes a rare and exploratory look at the experience of positive emotions in work settings, examining their causes and consequences. It begins by reviewing and offering a critique of previous organisational research related to this topic, which has tended to focus on the rather narrow concept of job satisfaction. In line with a recent theory of workplace affect (Weiss & Cropanzano, 1996), it is argued that a more in-depth look at positive emotions as momentary reactions to events may improve our understanding of how workplace positive affect is linked to various organisational outcomes.

A two-part study was carried out within a sample of home care workers for older people. In the first part, a qualitative diary study ($n = 9$) was conducted to explore in real-time the types of events that produce positive emotions at work on a day-to-day basis, and to explore the cognitive and behavioural outcomes of these emotions. Based on the findings of this study, a larger scale quantitative diary study ($n = 77$) was designed and conducted with the aim of examining the patterns of relationships between these variables.

It was found that the most common sources of positive emotions in care workers were related to social interactions with clients and, to a lesser extent, to task performance; a number of dispositional factors were found to influence the intensity of positive emotional experiences. Positive emotions were in turn found to predict the likelihood of a wide range of beneficial individual and organisational outcomes (including increased motivation, creative insights and favourable attitudes towards the job). In the light of the findings, it is tentatively argued that we may be able to meaningfully distinguish between socially-oriented and task-oriented positive emotional experiences at work.

This thesis reaches the conclusion that differentiating between positive emotions (as temporary states) and job satisfaction (as a relatively stable attitude) may improve the specific predictive power of each of the two separate sets of constructs. It is argued that this research, although directed at a specific occupational population, may to some extent apply to other occupations.

Keywords: positive emotions; emotion at work; job satisfaction; home care workers; Affective Events Theory; diary studies.

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Preface

“At first blush, it might seem that positive emotions (in organisations) simply mark the well-being or satisfaction of individual employees... but this is far from their whole story.”

Fredrickson (2000b, p.3)

Background

The ideas and motivation behind the present thesis were developed over some time. I first started thinking about positive emotions at work through my interest in occupational health psychology, which addresses how and why work impacts on our health and well-being. As soon as I started studying this topic, I rapidly became acquainted with the key terms in the discipline, which predominated in the titles of text books, journals and the courses I was studying: work stress, stressors, burnout, psychosocial hazards, risks, and so on, and I soon began to realise that occupational health psychology, like most of the other areas of psychology I had studied up until then, was characterised by a medical conceptualisation of health, emphasising the study of the *negative* aspects of the relationship between work and well-being, and their prevention and treatment. When I was offered the possibility, at the Masters level of my studies, to carry out a project which encouraged a more positive, fresh look at the work-health relationship that deviated from the traditional *stress* model, my curiosity was instantly awakened.

My Masters degree project was aimed at exploring the process by which work might exert its positive influence on well-being. The stress models I had been learning about seemed to explain how and why work could be both psychologically and physically harmful, I wanted to find out exactly by what process work could actually be *good* for your health. It seemed to me that something like this was missing from the existing literature (Holden-Peters & Griffiths, 2003; see also Innes & Barling, 2003). It was during my Masters degree project that I first came into contact with the slim but growing literature on positive emotions, and the idea that these might be linked to tangible benefits to health and well-being (Fredrickson, 1998). I started to consider the idea that the experience of positive emotions at work

might provide a theoretical framework that would help explain how, under the right conditions, work can ultimately benefit our psychological and physical health (Holden-Peters & Griffiths, 2003).

At first my interest in studying positive emotions at work was simply an intuitive one, and one born out of a curiosity to study something new, as much as anything else. Only after completing my Masters degree project did I recognise the full potential of a more positive approach. As soon as I began collecting data for that project, I was struck by how enthusiastically the managers in the organisations I approached took to my study. A phrase I heard more than once was "it's about time somebody asked them (the employees) what they like about working here". Many of the workers I interviewed also seemed to really enjoy talking about their positive experiences on the job. I began to realise that by framing my audit of the psychosocial workplace in this positive way, many doors were opened to me, and people put themselves out to help me. Therefore, the value of this approach was not restricted to bridging gaps in theory, there were also considerable practical advantages.

I think the fact that the project was so well received by all parties (the organisations involved and the university course tutors) largely contributed to my enjoyment of the process, which in turn, combined with the potential I could see in developing the ideas from the project, eventually spurred me on to thinking about expanding my research to Doctoral level. Although it was not a well-trodden path, there were many people advocating this line of research.

During my Masters degree project, I also began to realise that positive emotions, besides potentially having long-term beneficial effects on well-being, might also have a number of more immediate consequences on workers' thoughts and actions at work. I noticed a number of experimental studies providing evidence for this idea (e.g. Baron, 1990; Isen, 1987; Isen, Daubman, & Nowicki, 1987). Somewhere along the line, and as I began to think about extending my research, the focus of my interest gradually shifted away from looking specifically at the impact of positive emotions on well-being, broadening the scope to include also a consideration of the effects that these psychological states might have on an individual's cognitions and behaviours at work on a day-to-day basis. It seemed to me that any positive emotion-related changes in cognitions and behaviours would be likely to have a very direct and immediate impact on workers' performance and would therefore be potentially very interesting to managers in organisations. The more I read about positive emotions, the less I could understand why they had received so little coverage in the literature.

Having obtained the motivation and equally importantly the funding (from the Colt Foundation), I embarked upon my PhD in November 2001. From the beginning I had in mind one overarching aim: to explore the various potentially beneficial roles of positive emotions in work settings.

The Neglect of Positive Emotions at Work

Finding very little on positive emotional experiences at work within the emerging occupational health psychology literature, I then turned to the organisational behaviour research. I soon discovered that there was a considerable body of literature attempting to link certain work conditions with favourable psychological states for the employee and, in particular, attempting to link these states with increased productivity. However, there seemed to be little or no explicit mention of positive emotions, most studies seemed to refer exclusively to one construct, *job satisfaction*. This got me thinking: was job satisfaction the same thing as positive emotions at work? Much of the literature seemed to assume that it was, but as I began reading around I soon became aware that, within the organisational literature, some researchers were increasingly beginning to question the utility of using job satisfaction as an all-encompassing measure of positive emotional experience at work (Briner, 1999; Lucas & Diener, 2003; Hodgson, 1991; Weiss, 2002), and preaching the need for new theoretical framework.

At the same time, I realised that the topic of emotions at work – after years of relative neglect – was rapidly gaining popularity (Ashforth & Humphrey, 1995; Briner, 1999). In particular, organisational researchers were beginning to argue that since emotions are such transient and fleeting psychological states (here one minute, gone the next), it was important to measure these in real-time (i.e. as they happen) rather than retrospectively, in questionnaires. Only in this way, they argued, could we capture the short-term effects which emotions exert on cognitions and behaviours at work, and understand their full impact in organisations (Fisher, 2002). This observation seemed to coincide with the rising popularity and development within the social sciences of sophisticated methodologies which permit these kinds of real-time measurements.

My conclusion at the time, therefore, was that there had never been a better time to study positive emotions at work. With researchers, practitioners and managers increasingly embracing the need to understand emotional processes in the workplace (see Fineman, 1993), and some in particular decrying the neglect of positive

emotions in these settings (Fredrickson, 2000b), I decided to direct to my research at tackling some of the gaps in the literature. What *are* positive emotions at work? Do they differ from job satisfaction, and if so how? What are the beneficial effects of positive emotions at work, both for the individual who experiences them and for the organisation that employs them? If we establish that they *are* desirable states, how might we go about promoting them? Although I could find a few fragmented clues within the literature referring to these kinds of questions, there did not seem to be any existing overarching framework for this topic of study. I wanted to address this issue.

Aims of this Thesis

This thesis therefore represents an attempt to improve our understanding of the nature and significance of positive emotional experiences in work settings, and to provide a basic framework that may help guide future research on this topic. As Briner (1999) has pointed out, there is a need for both theoretical and descriptive empirical work in this area.

In this thesis, I will report some basic exploratory research that was conducted, within a specific occupational population, to determine under what circumstances workers experience positive emotions on the job, and what the consequences of these experiences are. The research I will present also examines the relationship between positive emotions and job satisfaction, since the latter has been so commonly used within the traditional organisational literature as a default measure of positive affect at work (Weiss, 2002). I will also explore the possibility that we may be able to go beyond looking at positive emotions as a unitary concept, and distinguish between different types of positive emotional experience at work.

Although the main aim of this thesis is to further our theoretical knowledge of positive emotions at work, I will also refer in it to the practical implications of the research that was carried out. Also, as well as tackling a fairly unexplored topic of study, the research I will present in this thesis adopts a fairly novel methodology for studying workplace affect, in the form of diaries, which permit the kind of real-time measurements of emotions I alluded to above. Although I will dedicate a chapter to discussing the choice of this methodology in some depth, given the breadth of findings of the research and in the interest of keeping this thesis as focused as possible, I will not discuss this as one of the central themes. I will, however, include a brief evaluation of the methodology that was adopted as an appendix.

The research I present in this thesis was carried out within a specific occupational population, home care workers for older people. Clearly, therefore, the findings of

the research apply most directly to this particular occupational group; however, I will argue in this thesis that many of the findings may also apply, to a certain extent at least, to other types of work.

Structure of this Thesis

The first chapter of this thesis places the research I will present within the historical context of the study of affect at work, and lays the groundwork for the various research questions I will address. I will introduce a recent theory of workplace affect – the Affective Events Theory (Weiss & Cropanzano, 1996) – which, I will argue, may provide a useful initial framework for understanding the role of positive emotions at work, and in particular their relationship to job satisfaction. I will use this chapter to outline some specific areas where I believe research is needed, to fill in the various gaps in our knowledge.

In Chapter 2 I will describe the research design that was adopted to carry out the empirical work for this thesis. Before doing so, I will provide a fairly comprehensive review of the various methodologies that are available for conducting research on positive emotions at work, describing how and why I decided on a particular approach. As I will outline in this chapter, the research was carried out in two stages. First, a qualitative diary study on a small sample of participants to explore the nature of some of the constructs related to positive emotions at work; this was then followed by a larger scale quantitative diary study, to examine the relationships between these constructs.

In Chapter 3 I provide a brief overview of the occupational population that was sampled for this research – home care workers for older people – and state my reasons for choosing them for this research.

Chapter 4 presents the first of the two diary studies that were carried out. I describe the findings of this qualitative study, which helped to uncover many of the constructs that relate to the causes and consequences of positive emotional experiences at work. These findings were then used to guide the design of the next stage of the empirical work that was carried out: the quantitative diary study.

In Chapters 5 and 6 I go on to describe this quantitative diary study. In both of these chapters, the analyses of the diary data which I will present involve multilevel statistical analysis techniques, which are still relatively novel in studies of workplace affect. For the reader's sake, I will attempt to keep these as simple and easy to follow as possible.

In Chapter 5 I present the part of the study that relates to the *antecedents* of positive emotions. I will consider the role of a number of situational and individual factors as potential contributors to positive emotional experiences at work, and show that – by examining specific emotions individually – it may be possible to categorise these experiences in terms of their antecedents.

In Chapter 6 I present the data that relate to the *outcomes* of positive emotional experiences at work. Using the constructs obtained previously in the qualitative diary study, I will explore the relationship between positive emotions and several cognitive and behavioural outcomes, and consider the possibility that different types of positive emotions might give rise to somewhat different types of thoughts and actions. I will also examine the possibility that positive emotions at work, experienced over time, might predict work attitudes (such as job satisfaction) at a later point in time.

In Chapter 7, I move beyond looking individually at the antecedents and outcomes of positive emotions at work and examine them simultaneously, adopting the framework of the Affective Events Theory (Weiss & Cropanzano, 1996). In particular, I will examine in some depth the relationship between positive emotions at work and work attitudes (such as job satisfaction). I will do this with a view to evaluating the proposition that workers' *momentary* positive feelings as reactions to daily events at work (positive emotions) and how they feel about their work *in general* (work attitudes), although related, essentially represent two distinct types of construct, with quite independent causes and consequences (Weiss & Cropanzano, 1996). In this chapter, I will also address the issue of causality in the relationship between positive emotions and work attitudes. If positive emotions and work attitudes are related, can we assume that by promoting positive emotional experiences in the workplace managers might directly create more satisfied or committed employees?

Chapters 8 and 9 bring together the findings from the preceding chapters, and in them I will discuss the theoretical implications of these findings in terms of advancing what (little) we already know about positive emotional experiences at work. I will also, in Chapter 9, integrate the various findings to propose a general model of positive emotions at work. In both chapters I will argue that this research, besides its immediate implications, may also help to highlight a number of avenues for future work on positive emotions at work.

As I have described above, this thesis is motivated by the clear need to develop our knowledge and understanding of the incidence and importance of positive emotions in the workplace. I hope that in some way – either directly or by encouraging further research – it helps to meet this end.

“It would seem impossible to escape the conclusion that in the long run at least, [workers] are more productive in a positive emotional state than in a negative”.

Hersey (1932, p. 289)

1. Positive Emotions at Work: An Introduction

This introductory chapter will be divided into three sections. I will begin by providing a working definition of the meaning of the term ‘positive emotions’ as used throughout this thesis. To do this, and given the complexity of this topic of study, I will need to present a very brief overview of the study of emotions within psychology, so as to provide a context for my definition. After this, I will proceed to give an overview of the history of the study of positive emotions in work settings, dating back to earliest studies in the 1930s and leading up to the present day. Given that the available research on this topic is remarkably limited, I also include a consideration of existing research from other areas of psychology which may be applicable to the present thesis. Lastly, I will conclude the chapter by presenting a research agenda to be addressed in this thesis.

1.1. Positive Emotions: A Definition

1.1.1. *What is an Emotion?*

What is an emotion? A pair of psychologists once remarked “everyone knows what an emotion is, until asked to give a definition. Then, it seems, no one knows” (Fehr & Russell, 1984). Emotions play such an important and obvious role in the lives of human beings that the earliest recorded theorising of emotion dates back to the times of Aristotle and Plato. They are a topic of interest for psychologists, philosophers, biologists and even laypersons alike. Within psychology, they have been studied from a wide range of different approaches and research traditions (from behaviourism to cognitive psychology; by biological, evolutionary, and social psychologists; within mainstream and humanistic psychology, and so on), reflecting the different levels of analysis which emotions can be subject to.

Perhaps as a result, a widely accepted definition has proved elusive. However, despite the number of competing theories of emotion¹, a certain degree of consensus regarding a definition appears to have emerged within mainstream psychology over the last couple of decades (see e.g. Frijda, 1993; Power & Dalgleish, 1997). Most definitions now seem to settle on a few essential components. Firstly, there is the experiential component. This is the subjective and private *feeling* which people experience in an emotional state, and which differentiates the experience of an

¹ For a sound review and interesting critique of psychological theories of emotion, see Parkinson (1995)

emotion from other cognitive activity. Secondly, every emotion is said to be characterised by the appraisal of an event. Events are appraised or evaluated in terms of their significance e.g. whether they are positive or negative and whether or not they affect the individual's personal needs, values and goals (Lazarus, 1991). It is this appraisal process that determines whether or not an event will provoke an emotion, either positive or negative. Third, many theorists agree that the experience of an emotion includes an action tendency, a specific readiness to deal with the environment in the most appropriate way in response to the appraised event, which may involve a shift in attention towards the most relevant environmental stimuli (Oatley & Johnson-Laird, 1987). The most classic examples of this are anger leading to the tendency to fight and fear leading to the tendency to escape. The fourth component of emotion relates to the expression of emotion, by way of movements, vocalisations, verbalisations and faces (Ekman, 1992). Finally, for many theorists, emotions are also characterised by a variety of physiological body changes, often accompanied by different types of bodily symptoms (e.g. a racing heartbeat when we are afraid), which may feed into the experiential component. This was the level of analysis that one of the earliest psychological theories of emotion was directed at (James, 1884).

These five points of consensus reflect, to a certain extent, the convergence of each of the different research traditions mentioned above. The bigger picture, produced by the combination of these different points, is that emotions can be thought of as internal states which serve us as indicators of whether a particular event or situation has been appraised or evaluated as favourable or unfavourable to our goals, and depending to the specific nature of the situation, they prepare our body and mind to deal with the situation as appropriate.

In this thesis, the level of analysis of emotion will relate mainly to the first *four* components of this consensus, touching upon each of them in one way or another. The thesis will be based on a theory of workplace emotion which incorporates the importance of subjective emotional experience, the assumption of event appraisal, the notion of action tendencies, and the assumption that people are able to express or report their emotions. Although I naturally acknowledge that positive emotions are also characterised by a variety of physiological body changes, I will argue in Chapter 2 that it is very impractical and relatively meaningless to study workplace positive emotions at this level of analysis. Instead, it is far more meaningful – as I will argue – to focus on the experiential aspect of positive emotions, and in fact throughout this thesis I will often use the terms positive emotion and positive emotional experience

interchangeably (although I acknowledge that the experiential aspect is technically only one component of the psychological construct of emotion).

Some of the points of definition I have outlined are useful in helping to distinguish emotions from other affective states, such as *moods*. For instance, emotions differ from moods in the sense that they are about a defining event or an object of interest (Frijda, 1993). Moods, on the other hand, lack an object to which the affect is directed. As Lazarus (1991) puts it, they “lack a contextual provocation”. Emotions are not only more specific than moods in the sense of being directed at an object, they are also far more specific in terms of the cognitive and behavioural responses (action tendencies) which they give rise to (Morris, 1989). Emotions and moods constitute, therefore, separate albeit related constructs (for instance, emotions can turn into moods; Frijda, 1993). I illustrate these points for the purpose of definition; in this thesis, emotions rather than moods are the topic of study.

So far, I have characterised emotions as discrete reactions precipitated by specific events. However, this simple cause-effect proposition somewhat underestimates the complexity of emotions. As Frijda (1993) notes, when people are asked to describe an emotional experience, often they do not report a single emotion precipitated by a single event. Rather, they report a series of emotional transactions with the environment, all organised around a single underlying theme (Lazarus, 1991). This process is often referred to as an *emotional episode* (Frijda, 1993), where a single event of affective significance leads to the unfolding of a series of sub-events, also with affective significance. Emotion, therefore, is a dynamic process (Parkinson, 1995). The current thesis bears this aspect of emotion into consideration, to a certain extent at least.

Lastly, having provided a general definition of what emotions are, it seems pertinent to make some mention of what exactly constitutes a single emotion. How many emotions are there? In the English language there are at least 200 words naming affective states (Fehr & Russell, 1984; Shaver, Schwartz, Kirson, & O'Connor, 1987), and over 500 words with emotional connotations (Ortony, Clore, & Foss, 1987). This has led psychologists over the years to spend much time and effort searching for valid ways of organising or structuring them. Some emotion theorists have claimed that there is a basic set of emotions (e.g. Ekman, 1992; Izard, 1977; Plutchik, 1994), the term *basic* supposedly pointing to underlying physiological substrates, but there is disagreement between each of these theorists as to exactly which emotions are the basic ones. The ‘basic emotions’ approach is particularly unhelpful to researchers interested in studying positive emotions in any depth, since it usually tends to lump these types of emotions all together under one general category (see e.g. Izard 1977;

Ekman 1992; Power & Dalgleish 1997). Cognitive appraisal theorists on the other hand, prefer to group emotions based on other criteria, such as the aspects of the events that give rise to them (Ortony, Clore, & Collins, 1988). I believe this last approach holds particular value for the purpose of the current thesis, an argument which I will develop later on.

Before moving on to the next subsection, I would like to clearly restate a fundamental point concerning my working definition of emotion, because it is very important that the reader should remember it clearly throughout this thesis; as I will argue later on in this chapter and later in Chapter 2, positive emotions as defined here (sticking to most contemporary psychological definitions) have *almost never* before been adequately studied in work settings. Emotions are *not* the same thing as moods: they are dependent on the appraisal of a discrete *event* or chain of events (Frijda, 1993), and therefore they tend to be temporary and momentary experiences. To ‘feel happy’ at a specific moment during a day at work as a result of a particular event (for example, being congratulated by one’s manager for doing a good job) would be an emotion according to this definition. However, to ‘feel happy’ generally throughout the day at work, for no particular reason, would according to my working definition *not* be an emotion, it would be a mood. Lastly, to say that one ‘feels happy’ in general with one’s job, for example because it pays well or because it offers good opportunities for promotion, would according to my working definition not be an emotion and in fact, as I will argue later on, it would not be a mood either, it would be an evaluation about one’s job, or an attitude. I will not go into depth about this last point just yet, but I will return to it later on in this chapter.

1.1.2. What is a ‘Positive’ Emotion?

This thesis is about positive emotions. Having defined what I mean by the term emotion, it is only fair to also define what I mean by the term *positive*. Are positive and negative emotions separable, discrete classes? This may seem at a glance to be an obvious question, but it isn’t necessarily so. Indeed, in the 2003 edition (2nd issue) of the journal *Psychological Inquiry*, a lively debate was centred on this very issue. It has been argued that it is “unwise and regressive” to divide emotions into positive and negative (Lazarus, 2003). Two points are cited in support of this argument. One states that some emotions, like pride or anger, can be either positive or negative, depending on the context or the culture in which they take place. For instance, pride may be valued in certain countries such as the USA, but not valued in others, such as China (Eid & Diener, 2001). The other point states that seemingly negative emotional states

can give rise to positive outcomes in the longer term (Campos, 2003). For example, negative emotions which are endured in difficult situations may, in the longer run, foster resilience or increased self-esteem as a result of the perception of being able to cope under pressure.

Although these examples raise important questions, there are several strong arguments in favour of the positive-negative dichotomy which I believe outweigh these concerns. According to one of these arguments, the term *positive* is, as much as anything else, a label for highlighting a broad area which is in much need of study (Diener, 2003). A point I hope to get across in this chapter is that positive emotions have traditionally been almost entirely overlooked by research on workplace affect. As Diener (2003) puts it, “*positive* does not have to be a simple, monadic concept to be a useful heuristic one” (p. 116). A second argument states that the positive-negative dichotomy is useful because it helps to draw attention away from a common assumption that the two concepts are simply opposite ends of the same dimension, such that positive is simply the absence of negative (Seligman, 2002). It has been argued on many occasions that positive emotions are quite independent of their negative counterparts, and that they comprise an entirely different system with an entirely different function from negative emotion (Bradburn, 1969; Fredrickson, 2000; Watson, Clark & Tellegen, 1988; Watson, Wiese, Vaidya & Tellegen, 1999).

All in all, I believe there are sufficient grounds for using the label *positive* in relation to emotions in this thesis. Positive here will be defined in terms of people’s judgements and experiences of what is pleasant, in terms of their feelings of subjective well-being, set in the context of the sample from which data for this thesis was collected. This is, according to Diener (2003) and Brock (1993), one of the criteria by which we (people) judge what is positive. For this reason, throughout this thesis I may sometimes refer to positive emotions as pleasant emotions. The term positive in this thesis will also be defined in terms of any outcomes which the emotions studied here are found to be linked with, such as longer-term feelings of subjective well-being, and also work attitudes and behaviours which as seen as favourable to the organisation they work for.

In my own view, it makes little sense to further neglect or postpone the study of positive emotions at work, based on an argument such as the one described. As Diener (2003) points out, once research on the urgent topic of positive emotions begins to get underway, specific questions regarding, for example, how negative can be positive and vice versa depending on the context (as outlined above) can be addressed.

In the next section, I will provide an overview of the history of the study of emotions at work, where I aim to show that workplace positive emotions – in the true meaning of the word emotion as defined above – have been largely neglected by researchers.

1.2. History of the Study of Positive Emotions at Work

1.2.1. Early Studies

One of first notable published studies of emotional reactions at work dates back to 1932, when Rexford Hersey published his research on *Worker's Emotions in Shop and Home*. Paradoxically since it is one of the first recorded studies, Hersey's (1932) study of workplace affect was arguably a great deal more advanced than a lot of the work which followed it over the next 50 years, both theoretically and methodologically. For one year he studied, in a considerable amount of depth, the affective states and behaviours of 17 skilled workers in an industrial plant which repaired freight railcars and locomotives. He conducted literally hundreds of interviews with each individual worker over the year period, assessing their daily mood levels and daily productivity. Mood was assessed with a 22-item checklist which included both positive and negative items. By assessing both daily mood levels and daily performance he was able to demonstrate a definite relationship between positive and negative affective states at work and productivity, even without the benefit of modern statistical techniques.

Although Hersey was actually probably measuring moods most of the time rather than emotions, a couple of aspects of his study are of interest here. Firstly, the fact that true positive affective states were considered, and secondly, the fact that they were assessed almost in real time, and in an ongoing way. Shortly after this study, this kind of approach was abandoned and the study of positive and negative emotions at work suddenly split off into two quite separate research traditions, both of which dominated the study of affect at work for most of the rest of the twentieth century.

1.2.2. The Neglect of Positive Emotions at Work

The topic of negative emotional experiences at work gradually took the form of *work-related stress*. Work stress is a concept which to this day continues to generate a massive amount of literature, of theories and frameworks, all aimed at increasing our understanding of the causes and consequences of negative emotional experiences at

work. There is even a journal, *Work & Stress*, which is exclusively dedicated to the topic. Although the idea of encompassing all negative emotions in one unitary global concept has received some criticism (see Briner, 1999), the decades of research have made some progress in unravelling the antecedents and outcomes of negative emotional experiences in work settings (see e.g. Cox, Griffiths & Rial-González, 2000).

On the other hand, those researchers who were interested in studying people's pleasant experiences at work appeared to abandon the idea of positive emotions and began construing positive experiences at work almost exclusively in terms of *job satisfaction*. Researchers went from assessing workers' positive affective states at different points in time (as Hersey had done) to taking more global assessments of how satisfied the workers felt with their work overall. Workers' job satisfaction was typically assessed using questionnaires, and usually at a single point in time. Some have speculated that this trend may have been influenced by (a) developments in the measurement of attitudes (Brief & Weiss, 2002), and (b) the fact that emotions are simply more difficult to study than phenomena such as satisfaction (Briner, 1999). What is true is that for the next 50 years or so the study of positive emotions at work seemed to disappear almost completely off the map.

1.2.3. Job Satisfaction versus Positive Emotions?

Over the next few decades, job satisfaction became a hugely popular topic of study. Researchers and managers wanted to know, in particular, whether workers who felt more satisfied in their jobs would be more productive (essentially trying to reproduce Hersey's findings). Weiss and Cropanzano (1996) refer to the numerous attempts to find an effect of job satisfaction on job performance as the "holy grail" of organizational research. However, it eventually became apparent that decades of study on this topic were producing basically nothing (e.g. Iaffaldano & Muchinsky, 1985; Podsakoff & Williams, 1986; Vroom, 1964). This led some researchers to "[relegate] the notion of the happy-productive worker to the folklore of management – as an unsubstantiated claim of practitioners and the popular press" (Wright & Staw, 1999, p.1).

In recent times it has been argued that the failure to find such a relationship may reflect, as much as anything else, the inappropriateness of relying on job satisfaction as a general marker of positive affective experience at work (Briner, 1999; Lucas & Diener, 2003; Hodgson, 1991; Weiss, 2002). Methodologically, it seems highly questionable whether a global assessment of satisfaction taken at one point in time

can be equated with the kind of repeated measurements adopted by Hersey (1932), but I will deal with this issue in more depth in the next chapter of this thesis. Aside from these concerns, the key issue seems to be whether job satisfaction can be said to be theoretically valid as a measure of positive affective experience at work.

In 1976, Locke defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976, p. 1300). This turned out to be a very influential definition of job satisfaction, and as a result job satisfaction came to be considered by many as an affective reaction to one’s job (Brief & Weiss, 2002). In recent times, however, most researchers adhere to the view that job satisfaction is best thought of as an attitude, a positive or negative evaluative judgment of one’s job or job situation (e.g. Weiss & Cropanzano, 1996). This is not the same thing as an affective or emotional reaction. The evaluative judgment may be influenced by emotions, but it also has a cognitive component (Organ & Near, 1985); it results partly from more abstract beliefs about one’s job. For instance, when asked to construct an evaluation or attitude about their job, workers are likely to use information, for example, about how much they earn, by comparing their own salary with those of the people around them, or against their own expectations (see e.g. Salancik & Pfeffer, 1978; Oldham, Kulik, Ambrose & Stepina, 1986). Likewise, they may also use information, for instance, regarding the likelihood of progression opportunities, or regarding the likelihood to develop their skills (or Curriculum Vitae) through further training or by being in a job with a lot of variety. This kind of cognitive process need not be in any way emotional.

As a result, there now appears to be a general consensus that job satisfaction, like all other attitudes (see Breckler & Wiggins, 1989), has an important *cognitive* component, and in this respect is quite distinct from an affective reaction. In other words, how we feel *about* our work (attitude) is not the same thing as how we feel *at* work from one moment to the next (affect).

To summarise therefore, it seems that for a long time researchers who were studying job satisfaction thought that they were directly measuring people’s positive emotional experiences at work, but it turns out that this assumption was flawed.

1.2.4. The Affective Events Theory: The Renewed Importance of Positive Emotions at Work

A possible way forward has been suggested in recent years by Weiss and Cropanzano (1996). They propose that we separate the affective and cognitive components of job satisfaction (and other job attitudes for that matter) by pushing the affective

component ‘back along the chain’ and treating it as a cause rather than a component of the evaluation (see also Olson & Zanna, 1993). Indeed, this notion formed the crux of their Affective Events Theory (Weiss & Cropanzano, 1996). The basic idea behind this theory is that the cumulative experience of momentary positive (and negative) emotions while working shapes attitudes towards that work. This theory is based on the assumption that attitudes are constructed at the time that the particular attitude is called for (for example, the moment when the worker is asked to complete a survey of job satisfaction). In constructing these attitudes, workers are thought to consult a large ‘database’ of relevant information, including recent emotional experiences with the attitudinal object (Wilson & Hodges, 1992).

Weiss and Cropanzano (1996) argue that it is important to distinguish between workplace emotions and work attitudes, among other things because they claim that emotions and attitudes differ in terms of the behaviours which they give rise to (a point which I will return to later on in this chapter); therefore, a key implication of the Affective Events Theory is that it highlights the importance of studying affective reactions at work *independent* of job satisfaction.

The second key implication of the Affective Events Theory is that it has helped to bring the study of workplace affect more in line with current mainstream theories of emotion (outlined above), by highlighting the role of events and event appraisal. It assumes, like most contemporary theories of emotion (see e.g. Frijda, 1993; Power & Dalgleish, 1997), that emotional states result from an assessment of the ‘goodness’ or ‘badness’ of the event, as well as an assessment of the event’s importance. Appraisal of ‘goodness’ lead to positive emotional states, the intensity of which is relatively high for important events and relatively low for unimportant events. This initial appraisal is then followed by further, more specific appraisal of context focusing on consequences, attributions, coping potential, and so on. It is this secondary level of appraisal which is thought to determine the experience of discrete (positive) emotions (pride, joy, etc.). Weiss and Cropanzano (1996) were particularly careful to distinguish between workplace *moods* and *emotions*. The former, they argue, are general ‘background’ affective states, which are either positive or negative (and may vary in intensity) and tend to be relatively stable and regular over time. Emotions, on the other hand, are event-contingent ‘shocks’ which disrupt the regularity of underlying mood patterns and help to shape their course, and refer to more specific experiences (not just positive vs. negative), consistent with the definition I provided above in section 1.1.

Although this kind of appraisal theory of emotion has been implicit in some traditional theories of negative affective experience at work (e.g. Cox, 1978), Weiss

and Cropanzano's (1996) Affective Events Theory is arguably the first example of a true theory of *positive* emotions at work (if we go by the definition of emotion which I provided above), and the first to afford momentary positive emotions a central role in organizational research. The Affective Events Theory also has indirect methodological implications for the measurement of emotional experiences, but I will discuss these in Chapter 2.

Some early empirical tests of the Affective Events Theory suggest that positive emotional states at work, and measured in the way that is implicitly recommended by the Affective Events Theory (which I will describe in Chapter 2), are indeed predictive of work attitudes such as job satisfaction and organisational commitment (Fisher, 2000; Fisher, 2002) and even some indices of performance and pro-social behaviour (Fisher, 2002; Miner, 2002).

I believe the Affective Events Theory constitutes a promising framework for the study of positive emotions at work, a point which I will continue to argue towards the end of this chapter. Before doing this though, I will conclude my overview of the history of the study of positive emotions at work. Although it is tempting to argue that before the Affective Events Theory all organisational research either ignored positive emotional experiences altogether or (mistakenly) construed them as job satisfaction, this would be untrue. What I would argue however is that although there have been some sporadic studies of positive emotional experiences at work which give us some leads to follow, most of these studies are somewhat limited both theoretically and methodologically, and they do not, by any means, constitute a coherent literature on positive emotions at work.

1.2.5. Other Research on Positive Emotions at Work

Starting from about 15 years ago, the literature holds a few (rare) examples of studies of actual positive affective states (rather than job satisfaction) in work settings. Many of these seem to correspond to one specific author, Jennifer George. George has contributed to the area with studies that suggest, for example, that positive mood at work is negatively correlated with levels of absence (George, 1989) and that positive mood in leaders is positively associated with group performance (George, 1995). She has also contributed, more recently, with theorising about how and why positive mood might affect judgement and behaviour in organisations (Forgas & George, 2001). In another study worthy of mention, Staw, Sutton and Pelled (1994) found that positive emotion experienced and expressed by workers at one point in time predicted

the supervisor evaluations, support and pay which they received 18 to 20 months later.

While these studies have helped to advance our understanding of the role of positive affect at work, they are somewhat limited in a number of ways and do not tell us all that much about positive emotions *per se*. To begin with, and despite their use of terminology, they have almost without exception been directed at positive moods rather than positive emotions, if we go by contemporary definitions of emotions as outlined above. Secondly, these positive moods have been assessed retrospectively, typically asking respondents to report their mood at work over the past week, or month. As I will discuss in Chapter 2, assessing affective states in this way is problematic. Lastly, something which each of the abovementioned studies has in common is that they treat positive emotional experience as a global construct (in line with traditional categorisations of basic emotions as outlined above), with no recorded effort to establish taxonomic boundaries among the many different positive emotions terms which people use to describe how they feel at work. As I will shortly point out in section 1.3, there may be more useful ways to conceptualise and categorise the wide range of different positive emotional experiences. Before moving onto this, however, I conclude my review of the relevant literature with an outline of the existing research on positive emotions within psychology as a whole.

1.2.6. Research on Positive Emotions within Psychology as a Whole

If positive emotions in work settings have typically been ignored by researchers, within psychology as a whole the topic of study has fared little better. There has always been a greater urgency within the field of psychology to understand negative emotions, since the suffering and loss that stem from these is immense, and reflecting this urgency the scientific literature on emotions includes far more publications on negative emotions (such as fear, anger and sadness) than on positive emotions. Indeed, a quick look at the literature on theories and frameworks of human emotions reveals a huge bias in favour of negative emotions (e.g. Izard, 1972; James, 1884; Oatley & Johnson-Laird, 1987; Panksepp, 1982; Power & Dalgleish, 1997; Tomkins, 1984). It is as if efforts to understand positive emotions have been postponed while psychologists try to learn more about preventing and treating the disease and suffering caused by negative emotions (Fredrickson, 2000).

However, in recent years, things have shown signs of improving. Recent theorising combined with findings from a number of experimental studies have helped to

contribute towards our understanding of positive emotions, and some of this knowledge may turn out to be applicable to the study of positive emotions at work.

The bulk of existing experimental evidence seems to correspond in particular to one author, Alice Isen. Isen has provided evidence demonstrating that positive affective states, induced in experimental settings, can produce more flexible and creative thinking (Isen, 1987) and can facilitate creative problem-solving (Isen, Daubman, & Nowicki, 1987) and other cognitive processes such as the integration of information (Estrada, Isen, & Young, 1997); she has even applied neuropsychological research to explain some of these effects (Ashby, Isen & Turken, 1999). Some other authors have also published studies worthy of mention: for instance, Baron (1990) found that experimentally inducing positive affective states (using pleasant artificial scents) improved participants perceived self-efficacy, their task performance and their negotiation strategies. They can also be predictive of pro-social behaviours (Isen & Baron, 1991); this particular kind of effect has been linked to emotion or mood *regulation* processes: people in a positive affective state are more likely to help people around them because – or rather *if* – they believe that by helping they will be able to *maintain* that pleasant affective state. Again, these types of studies have tended to look at (artificially-induced) positive *mood* rather than positive *emotions* per se, and they also tend to treat positive affect as a global construct.

In the last 7 years, one researcher in particular has made considerable theoretical contributions to the topic: Barbara Fredrickson (e.g. Fredrickson, 1998; 2000a; 2001; 2002). Fredrickson (1998) has proposed an evolutionary theory – specific to positive emotions – in which she suggests that the experience of momentary positive emotions might have a generalised effect on cognition, with arguably beneficial longer-term outcomes for individual well-being. Her ‘broaden-and-build’ model suggests that positive emotions, which tend to arise in contexts appraised as safe, broaden people’s modes of thinking, and in turn, build their personal and social resources. Fredrickson argues that, in contrast to negative emotions which are linked to specific action tendencies (as outlined above), positive emotions are less prescriptive and give rise to more general changes in cognitive activity, broadening the momentary *thought-action* repertoire. In support of this, she presents a body of evidence – citing, for example, some of Alice Isen’s work – that shows that positive emotions are linked to broadened scopes of attention and more flexible, creative and receptive patterns of thought (Isen, 1987). This kind of effect, she argues, may help to foster performance skills, thereby building people’s physical and intellectual resources. Fredrickson suggests that positive emotions may also prompt pro-social behaviours which have the effect of fostering social relationships with other people, thereby building durable social

resources which could be drawn on later, and in other emotional states. The take-home message of Fredrickson's theory is that the desirable outcomes of positive emotions are more durable than the pleasant, transient emotional states which give rise to them in the first place. She has also argued that these desirable outcomes very much apply to organisational settings (Fredrickson, 2000b). A particularly appealing aspect of Fredrickson's approach is that she takes a micro-level look at positive emotions, admitting the possibility that distinct emotions of the same (positive) valence may have quite different causes and consequences.

I believe the kind of theorising offered by Fredrickson may hold some potential for understanding the role of positive emotions in work settings. However, to this date, there is still a shortage of direct empirical evidence to support her propositions. Likewise, it remains to be seen whether the kinds of experimental findings obtained by Isen will necessarily apply to the experience of positive emotions in the workplace in a normal everyday context.

1.3. Where We Are Now: The Need for More Research?

Although this review of the relevant literature is not intended to be exhaustive, I believe it has portrayed a representative (albeit greatly summarised) picture of the history of studies on positive affective states in work settings (or *applicable* to work settings) highlighting some of the issues which have surrounded it along the way, and it has set the scene for me to now outline what I think are the most pressing research agendas. However, first it seems that it would be pertinent to review the reasons *why* research on positive emotions in work settings is so necessary in the first place.

1.3.1. Why Study Positive Emotions at Work? A Summary

As I have described in my review of the existing literature on this topic, most studies of positive affective states in work settings have been largely driven by a desire (mainly on the part of managers) to establish whether a worker's 'happiness' and his or her productivity are related. Although the findings from early studies (such as that of Hersey, 1932) found evidence for such a relationship, decades of research since then have been largely unable to consistently corroborate it (e.g. Iaffaldano & Muchinsky, 1985; Podsakoff & Williams, 1986; Vroom, 1964). It is now believed by some that a likely reason for the disappointing yield of the literature relates, at least in part, to inadequacies in the conceptualisation of employee 'happiness': more specifically, some have argued that the popular construct job satisfaction does not

provide a suitable equivalent measure of positive emotional experiences at work, and that attitudes (such as job satisfaction) and emotional states predict quite different behavioural outcomes (Weiss, 2002; Weiss & Cropanzano, 1996). These same researchers have argued that if we take more detailed measurements of markers of employee 'happiness', for instance by measuring temporary emotional states rather than broad stable measures (e.g. of job satisfaction), such as Hersey (1932) once did, we might find closer links to performance. As I have pointed out, recent work that has adopted such a close examination of temporary emotional states has found links to indices of performance and pro-social behaviour (Fisher, 2002; Miner, 2002). It seems also that temporary positive emotional states may be linked to short-term motivational processes (see Fisher & Noble, 2004) and, as mentioned above, to other outcomes such as creativity (Isen, 1987), which in certain circumstances are likely to be beneficial to the organisation.

Besides predicting specific behaviours or performance outcomes it appears that temporary positive emotional experiences may play a part in shaping longer-term attitudes such as job satisfaction or organisational commitment (Weiss & Cropanzano, 1996), which in turn have been shown to predict organisational outcomes such as turnover intentions (see e.g. Mathieu & Zajac, 1990) and absence (Farrell & Stamm, 1988; Johns, 1997). Studying positive emotions would thus help us gain a better understanding of how people form attitudes about their work; early tests of Weiss and Cropanzano's (1996) Affective Events Theory support the proposition that positive emotions experienced help to shape work attitudes (Fisher, 2000; Fisher, 2002).

Quite aside from the obvious direct benefits that workers' positive emotions may carry for the organisation they work for, it seems very likely that these experiences may also have a number of beneficial consequences for the workers themselves. It has been pointed out that the experience of both positive and negative emotions is central to individual subjective well-being (Diener & Larsen, 1993). Somewhat surprisingly, in organisational research this idea has not received all that much attention; the study of well-being at work has traditionally been more influenced by research on negative emotional experiences (see Innes & Barling, 2003; Holden-Peters & Griffiths, 2003). Yet evidence from recent experimental studies shows that positive emotions have tangible beneficial effects on both physical and psychological health (Fredrickson, 2001), much in the way that negative emotional reactions at work have been found to have long-lasting tangible deleterious effects on health (see e.g. Cox, Griffiths & Rial-González, 2000). Positive emotions have been shown to improve physical health by speeding up the recovery from the cardiovascular sequelae of negative emotions; they have an 'undoing' effect on negative emotions (Fredrickson & Levenson 1998;

Fredrickson, Mancuso, Branigan & Tugade 2000). Other research has shown that positive emotions may lead to improved well-being via several pathways e.g. psychoneuroimmunology (Salovey et al 2000). The emerging picture is that positive emotions are beneficial to an individual's well-being not simply within the present, pleasant moment but over the long term as well.

The fact is that since studying momentary positive emotional states in work settings has traditionally been such a neglected endeavour, we do not yet know the extent of the role that these may play in an individual's psychological functioning on a day to day basis. I believe there is need for theoretical and empirical work to explain how positive emotions experienced in work settings can lead to improved functioning at the level of both the individual and the organisation. Recent theoretical work (e.g. Fredrickson, 1998; Weiss & Cropanzano, 1996) may provide useful starting points – and such theories need to be put to empirical test in real life work scenarios – but furthermore it seems likely that a certain amount of exploratory work is also necessary to aid our development of theory.

Research on positive emotions might also help draw emphasis away from the traditional reliance on constructs of global work-related well-being, such as stress and job satisfaction, and show how discrete emotional states might be more predictive of organisationally relevant outcomes (see Briner, 1999; Brief & Weiss, 2002; Weiss, 2002).

Finally, this thesis on positive emotions at work coincides with a growing call from within the *positive psychology* movement (see Seligman & Csikszentmihalyi, 2000) for more research on positive emotions within psychology in general (see also Fredrickson, 2000a; 2002), and also more specifically in work settings (Fredrickson 2000b; Holden-Peters & Griffiths 2003).

In the next subsections, I will set out an agenda of what I believe are some of the most obvious gaps in our knowledge, and areas that are particularly in need of systematic study.

1.3.2. The Antecedents of Positive Emotions at Work

Clearly, if the experiences of positive emotions in workers can be found to predict desirable outcomes for individuals and / or their organisations, it would seem important to build a framework of the antecedents of these experiences. Increasing our knowledge about the types of situations where positive emotions are likely to arise, and about the types of people who are more likely to experience positive

emotions in a particular situation, would help to improve our ability to make useful predictions that can be applied to organisational interventions.

Our current understanding of the antecedents of workers' positive emotional experiences is in fact somewhat limited. Firstly, as I outlined above, researchers interested in learning about what makes people feel good at work have traditionally tended to focus on the rather vague construct of job satisfaction, and on the role of stable job characteristics (such as autonomy, opportunity for skill use, etc.) as antecedents. As Spector (1996) has pointed out, throughout much of the 50 years, researchers have tried to correlate one job characteristic after another with pencil-and-paper measures of job satisfaction, producing well over 10,000 studies. Well-known frameworks of "desirable" job characteristics include those of Hackman and Oldham (1980) and Warr (1987). However, as I argued above, job satisfaction may not constitute a very appropriate or useful construct with which to measure positive emotional experiences at work. If it is emotions that we are interested in studying, the extensive literature on the antecedents of job satisfaction may be of limited use to us. According to contemporary psychological theories of emotion, emotions are seen *not* as chronic states which are determined gradually by stable features or characteristics of a work environment, but as momentary states which arise in reaction to a particular event (or chain of events). Weiss & Cropanzano's (1996) Affective Events Theory, which highlights the role of events and the emotional reactions they give rise to, has finally begun to bring the field of study more in line with current mainstream theories of emotion. The Affective Events Theory suggests that work environment characteristics or features may predispose the more or less likely occurrence of events, but at the end of the day it is *events* that we should be studying as the proximal antecedents of positive emotional experience. For instance, a worker may experience a positive emotion following the completion of a challenging project at work (event), which was in turn made more likely by being in a job where he has opportunities to use his skills (work environment feature).

So what exactly *are* the kinds of events that lead to positive emotional experiences in workers? How much can traditional frameworks of job characteristics (e.g. Hackman & Oldham, 1980; Warr, 1987) really tell us? Are these stable features directly related to the nature of events that produce positive emotions at work (as suggested by Weiss & Cropanzano, 1996), and if so, which *particular* types of work features and events are the most predictive of momentary positive emotional states on a day to day basis? Also, can we not make inferences about the situational antecedents of positive emotions by simply inverting what we already know about the antecedents of negative emotional reactions at work? With regards to this last question, evidence

overwhelmingly suggests that positive and negative emotions have quite independent predictors (Clark & Watson, 1988; Fisher 2002; Holden-Peters, Griffiths & Brenner, 2004; Kanner, Coyne, Schaefer & Lazarus, 1981; Stallings, Dunham, Gatz, Baker & Bengtson, 1997), and it seems that it would not simply be a case of reducing the triggers of negative emotions so as to directly promote positive emotions; positive emotions are more than the absence of negative emotions (Fredrickson, 2000).

Also, and given that the experience of emotions is thought to be dependent on the appraisal of an event (e.g. Frijda, 1993), rather than the event *per se*, what are the person-level factors that are likely to influence this appraisal process? General research on emotions has found that demographic factors such as gender or age may have an impact on the reporting of (positive) emotions (see e.g. Diener, Sandvik, & Larsen, 1985) which, as I will discuss later on in this thesis, may be a result of differences in the appraisal of events or equally a result of different tendencies to report these experiences. But moving beyond these demographic factors, it seems likely that differences in needs, goals and other dispositions are likely to influence an individual's appraisal of a particular event. Increasing our knowledge about the roles of these types of person-level factors is likely to be as important as knowing about the events themselves. There is nothing novel about suggesting that the same content and context of a particular job may be desirable to one individual but completely undesirable to another; a person-environment fit model has often been applied to studies of organisational behaviour and career management for explaining outcomes such as performance, turnover and well-being (e.g. Holland, 1985; see also Hackman & Oldham, 1980). However, perhaps events and the individual's momentary emotional reactions to these events play a key mediating role in this relationship. In recent times, it has been argued that we need a greater consideration of individuals' emotional experiences in organisational topics such as career development (Kidd, 1998; 2004). Perhaps a given individual functions well in a particular job or organisation because that job provides the opportunity for events which the individual reacts to with positive emotional experiences (and their associated benefits), but only because the events are appraised as positive in the context of the individual's specific dispositions, needs, values, etc. This may seem like an obvious statement, but in fact most of the literature seems to assume that this kind of person-environment fit is a purely cognitive process: the possible role of specific emotional events seems to have been overlooked (Kidd, 1998; 2004).

All in all, there is a feeling that there is still much exploratory work to be done to carry this topic of study forward. In this thesis, I try to address each of the questions I have posed in this subsection. In Chapter 4, I begin an exploration of the types of

situational antecedents or events that are perceived as being causal to the experience of positive emotions in care work. I continue this exploration in Chapter 5, where I also introduce a consideration of the individual or person level variables (such as differences in dispositions, needs, etc.) which I believe may influence the appraisal of these events, and therefore play a part in shaping these emotional experiences.

1.3.3. The Outcomes of Positive Emotions at Work

As I described above, there are a number of reasons to believe that the experience of positive emotions at work will be beneficial to individuals and organisations, both in the short-term and in the longer-term. However, if our knowledge of the antecedents of workers' positive emotional experiences is somewhat limited, our knowledge of the *consequences* of these experiences is equally unsatisfactory. Firstly, the traditional reliance on job satisfaction as a measure of positive emotional experience at work has only tended to confuse matters, as I outlined above. Recently, it has been suggested that, rather than a *measure* of positive affective experience at work, job satisfaction is best thought of as one of the many possible *outcomes* of positive emotions experienced at work (Weiss & Cropanzano, 1996). The more frequent or the more intense positive feelings which we experience at work, the more likely we are to form favourable attitudes towards the job. Logical as this proposition may sound, until very recently it has gone largely untested. I believe it is important to establish the precise relationship between positive emotions and attitudes, because it is important that we keep them conceptually distinct, as I have suggested already above and will elaborate on in the next subsection.

Aside from influencing attitudes towards the job in the long run, it seems highly likely that positive emotional experiences in the workplace also have more immediate consequences for the individual and the organisation they work for. Some clues are already available from the existing experimental evidence, outlined above: positive affective states have been linked with flexible and creative thinking (Isen, 1987), creative problem-solving (Isen, Daubman, & Nowicki, 1987), the integration of information (Estrada, Isen, & Young, 1997), pro-social behaviours (Isen & Baron, 1991) and improved perceived self-efficacy, task performance and negotiation strategies (Baron, 1990). It has also been found that positive emotions may play a fundamental mediation role in coping processes (Fredrickson & Joiner, 2002). Fredrickson (1998) has suggested that positive emotions may give rise to changes in cognitive activity, broadening people's scopes of attention and leading to more

flexible, creative and receptive patterns of thought. However, these kinds of effects (and proposed effects) have rarely been tested in real everyday work settings.

Although we have some indications from experimental studies about the possible kinds of short-term effects of positive emotional states, we do not really know the full extent of the role that these emotions play during an individual's day at work. In a spontaneous non-experimental setting, how do workers' positive emotional experiences affect their thoughts and behaviours throughout the day? Do they play a role in influencing psychological phenomena such as self-efficacy, as suggested by Baron (1990)? Do they help to cement interpersonal relationships with colleagues, as suggested by Fredrickson (1998)? Or perhaps rather than second-guessing the various specific effects of positive emotional experiences, and given that our understanding of the precise role of momentary positive emotions in work settings is still rather limited, a sensible approach might involve being relatively exploratory as we begin studying these experiences in their everyday contexts (see Briner, 1999). Perhaps we should begin by asking what exactly are the short-term changes in cognition and behaviour that are most often associated with the experience of positive emotions in work settings, before imposing pre-conceptions of what these constructs might be.

I attempt to address these types of questions here in this thesis. In Chapter 4, I report an exploration into the types of short-term changes in cognition and behaviour that are perceived as being associated with positive emotional experiences in my occupational sample. In Chapter 6 I take this analysis further, and consider the possibility that some cognitive and behavioural outcomes might be predicted by some types of positive emotional experiences and not by others.

1.3.4. Positive Emotions vs. Positive Attitudes

Organisational psychology researchers have traditionally often blurred the boundaries between positive emotional states at work and job satisfaction, as I described above. However, in recent times some have argued that job satisfaction is best thought of as an attitude rather than an emotional state (Brief & Weiss, 2000; Weiss, 2002; Weiss & Cropanzano, 1996); these same researchers also argue that, as such, emotions and attitudes (such as job satisfaction) represent quite distinct, albeit related constructs. Emotions are described as being rich, variable and temporary "heat of the moment" experiences, as opposed to attitudes which are seen as being stable and "cold" (Organ & Near, 1985; Staw, Bell & Clausen, 1986).

It has been argued that emotions and work attitudes (such as job satisfaction) are related in the sense that attitudes are determined, at least in part, by the cumulative

effect of emotional experiences; this is one of the central tenets of Weiss and Cropanzano's Affective Events Theory (1996) (see Figure 1.1). It has traditionally been assumed that work attitudes are the result of a cognitive comparison process (e.g. Hackman & Oldham, 1980; Oldham, Kulik, Ambrose & Stepina, 1986; Salancik & Pfeffer, 1978); the Affective Events Theory posits that when we are asked to declare an attitude about our work, besides making cognitive comparisons, we *also* tend to use information about recalled relevant emotional experiences. As I described in the previous subsection, I intend to test in this thesis the proposition that positive emotions experienced at work may shape attitudes towards that work.

However, there are also other questions that need to be addressed. For example, why should it be so important to make the distinction between positive emotions at work and work attitudes in the first place? Weiss and Cropanzano (1996; see also Weiss, 2002) have argued that by treating (positive) emotions and attitudes as equivalent constructs, we risk losing valuable information about the specific predictive power of each of the two separate sets of constructs. They argue that emotions and attitudes differ in terms of the behaviours which they give rise to: whereas emotions may have specific effects on cognitive processing (of the kind which I have described above) and provoke specific behaviours (such as helping behaviours, see Isen & Baron, 1991), attitudes on the other hand are more likely to be the causes of more carefully-planned behaviours such as turnover, absenteeism and retirement (see Hulin, 1991). Their Affective Events Theory thus distinguishes between *affect-driven* behaviours and *judgement-driven* behaviours. A previous test of this proposition found that indeed, positive emotions were much better predictors of helping behaviours than attitudes were, whereas attitudes were much better predictors of turnover intentions than positive emotions were (Fisher, 2002). I believe that more research is needed to thoroughly test this proposition, because if ratified it would support the idea that we really are looking at two distinct types of construct, and more importantly it would provide enough of a reason to study temporary emotional states in their own right. Perhaps measures of such states might help us to find closer links between affect and performance, as were once observed by Hersey (1932). If, on the other hand, it emerges that there is not much difference in the types of behaviours that are predicted by emotions and attitudes, there would be much less point in obtaining measurements of temporary emotional states, especially given that they are so much harder to obtain than attitudes (as I will describe in Chapter 2).

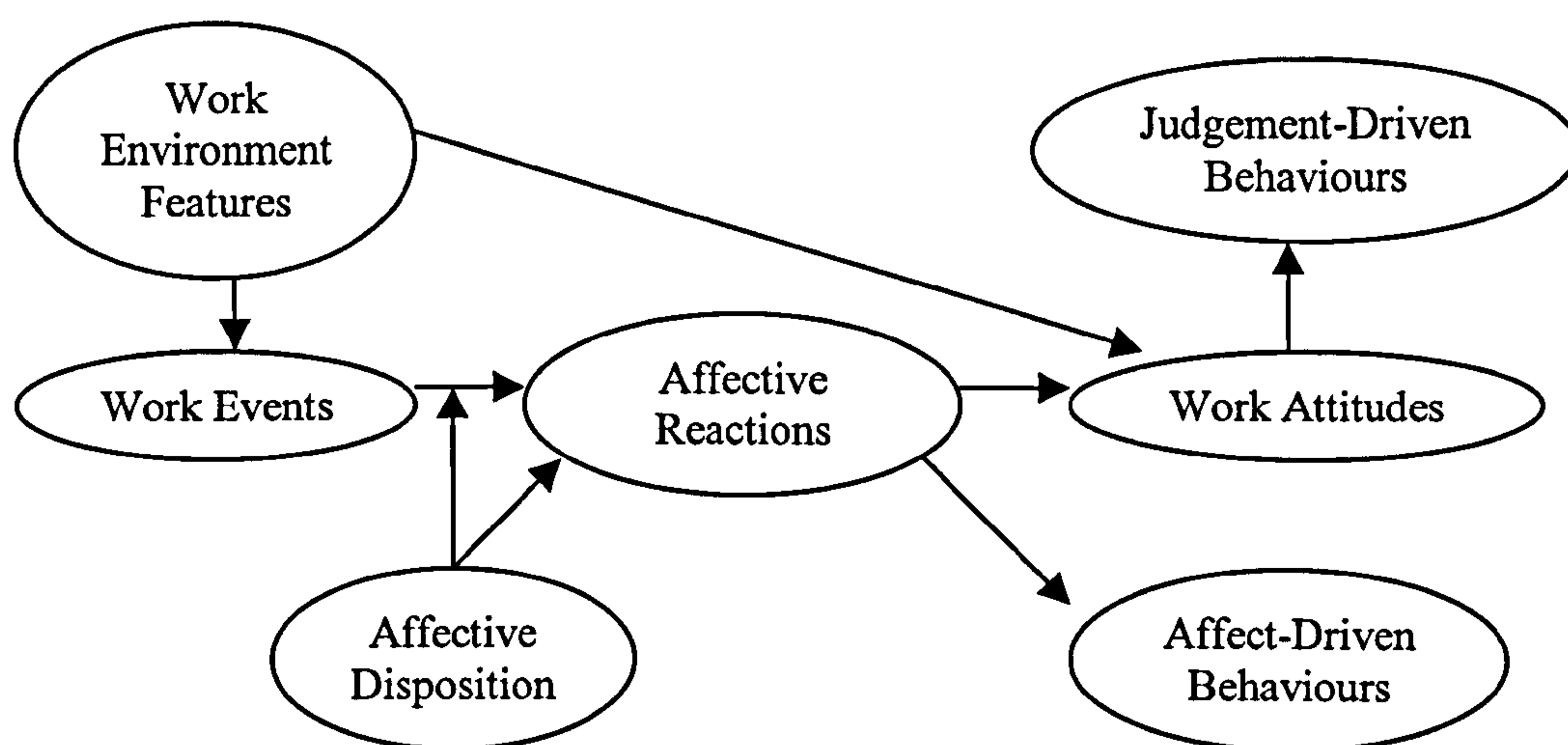


Figure 1.1. The Affective Events Theory (Weiss & Cropanzano 1996, p.12).

Another way of assessing whether positive emotions and work attitudes constitute distinct constructs might involve examining whether they have different causes. The Affective Events Theory indeed implies that emotions and attitudes have different antecedents: whilst attitudes are thought to result from (a) the cumulative effect of emotions themselves, and (b) the cognitive comparison of various features of the work environment (see e.g. Hackman & Oldham, 1980; Oldham, Kulik, Ambrose & Stepina, 1986; Salancik & Pfeffer, 1978), emotions on the other hand are said to result from discrete workplace events, the likelihood of which is in turn predisposed by features of that same work environment. However, Weiss and Cropanzano (1996) were particularly vague about stating what these particular work environment features might be; all they said on the matter was “we are not suggesting that each feature of the work environment has both direct and indirect effects [on attitudes]” (p. 12). Nowhere in their influential article did they discuss the possible differences between the types of work environment features which influence attitudes directly and those which do so indirectly, via the experience of emotions. However, it seems possible that some work features might be more predictive of events (leading to the experience of emotions) than others. For example, pay conditions are likely to be a feature of work which influences workers’ attitudes towards their job; it seems less likely however that pay conditions are likely to predispose the occurrence of discrete emotional events on a day-to-day basis. For instance, a worker may be committed to his job because he believes that the pay is very good; this kind of effect may have little or nothing to do with the cumulative effect of emotional events. I would argue that our understanding of the precise role of positive emotions in the workplace would be improved (and theories such as the Affective Events Theory would be more

informative) if we could predict which types of work environment features are likely to influence attitudes via the cumulative experience of emotions, and which, by contrast, are more likely to be evaluated in more direct, cognitive evaluation processes, for which emotions play much less of a role. Following the logic of the Affective Events Theory, it seems that emotional experiences would be most likely to be predicted by the features of work that are associated with *events* on a day-to-day basis (perhaps relationships with colleagues), whereas other features of work (such as pay conditions) might be more likely to influence attitudes directly.

Therefore, in Chapter 7 of this thesis, I will test some of the propositions of the Affective Events Theory (Weiss & Cropanzano, 1996) which relate to the relationship between positive emotions and attitudes. Specifically, I will test (a) the proposition that positive emotions and work attitudes are related in the sense that the cumulative experience of the former may, over time, influence the latter; and (b) the proposition that positive emotions and attitudes differ in terms of their antecedents and outcomes, such that we can conclude that they constitute separate constructs that deserve to be treated as such.

With regards to the relationship between positive emotions and work attitudes, I would argue that another, very important question needs to be addressed. Supposing that positive emotions are found to be associated with work attitudes, can we really demonstrate any causality in this relationship? Can we show that positive emotional experiences actually *causally* shape attitudes, as Weiss and Cropanzano (1996) suggest? Causality between variables is difficult enough to determine within social science at the best of times (Hollis, 1995); in the case of emotions, which are arguably some of the most complicated constructs within psychology, this becomes a very difficult task indeed, particularly when the researcher is relying on self-report data. Much of the traditional research on positive affect at work has involved cross-sectional survey data, making it practically impossible to infer causality from observed relationships. Can we infer causality in the relationship between positive emotions and attitudes such as job satisfaction? The methodology I adopt in this thesis, which I present in Chapter 2, is chosen with this kind of issue in mind. In Chapter 6 I present data to examine the proposition that momentary positive emotional experiences may be predictive of longer-term work attitudes; in Chapter 7, I address the issue of causality in this relationship.

1.3.5. Towards a Model of Positive Emotional Experiences at Work

A particularly attractive element of the Affective Events Theory is that it helps to place positive emotions at work within the context of an overarching theoretical framework. The importance of conducting research on emotions at work within the context of such a framework has recently been highlighted in the literature (see Briner, 1999). This issue seems especially important for a study of *positive* emotions at work, given the theoretical confusion that has traditionally plagued this area of research, particularly with regards to the much maligned use of job satisfaction as an equivalent construct as I outlined above.

In Chapter 9 of this thesis, and using the Affective Events Theory as a template, I will integrate several of the findings of this thesis to propose a general model of positive emotional experience at work. This model will incorporate, more specifically, details about the various antecedents and outcomes of positive emotions (as emerge from the empirical work conducted for this thesis) and about the relationship between positive emotions and attitudes (such as job satisfaction). This model, without being definitive, is intended to provide a guiding framework for understanding the incidence and significance of workers' positive emotional experiences on the job and to help set up an agenda for further work on positive emotions at work.

1.3.6. The Structure of Positive Emotions at Work

An aspect of positive emotional experiences at work which I wish to consider in some detail in this thesis is the structure of these experiences. As I have pointed out above, most existing studies of positive affective states at work have tended to treat positive emotion as a global construct, mirroring many traditional frameworks of emotions, which tend to lump all positive emotions under one general 'happy' factor (see e.g. Izard, 1977; Ekman, 1992; Power & Dalgleish, 1997). Studies rarely use specific positive emotions or even sub-clusters of positive emotions as units of analysis, preferring instead to aggregate items into a general factor. There are almost no recorded efforts to establish taxonomic boundaries among the many different positive emotions terms which people use to describe how they feel at work. To counter this trend, it has recently been suggested that a more in-depth consideration of specific discrete emotions is warranted in our approaches to theories of emotion (Lazarus, 1999), and in our approaches to the study of workplace emotions (Brief & Weiss, 2002; Briner, 1999), since it is argued that specific discrete emotions are likely to constitute unique experiences, each with its own set of antecedents and outcomes.

In recent years, there have been a few limited attempts within the general psychological literature to categorise positive emotions into lower order factors. Fredrickson (1998), for instance has argued that there are at least four distinct types of positive emotion: joy, interest, contentment and love. A reduced framework is offered by Diener, Smith and Fujita (1995) who, based on empirical work, have suggested that there are two distinct types: joy and love. However, I would argue that frameworks such as these are unlikely to be of much practical value for classifying positive emotional experiences at work: love and joy would not seem, intuitively, to be the most prevalent types of positive experience in a day-to-day work context, and it seems hard to imagine that all positive emotional experiences at work could be meaningfully classified into these kinds of categories.

So what alternatives are there for classifying positive emotional experience at work? One possible option would be to choose a list of positive emotion words which are likely to be relevant to work situations and, based on the workers' ratings of these emotion words, conduct factor analytic work to try to uncover any underlying structures. However, even the researchers who produced the frameworks I described above have warned that positive emotions tend to be very strongly correlated (Diener et al., 1995; Fredrickson, 1998; see also Watson, 2000). A second possibility would be to again use a list of different positive emotion words, and to classify these based on any patterns of *common antecedents* which are observed from the data. Clearly the positive emotion terms we use in language are designed to make qualitative differentiations of the antecedents of a given subjective experience (for example, if somebody says they feel *proud*, that word gives us some kind of rough indication as to the type of situation or event that might have given rise to that emotion), but given the huge lexicon of available emotion terms, it would seem desirable to find some higher-order classification. If a cluster of positive emotion words is found to be correlated with one particular type of antecedent but not another, one could argue that this is evidence for an underlying distinct facet of emotional experience, perhaps with a particular function, and as such these words could be organised into a positive emotion sub-cluster.

This kind of method of classification has been proposed in the past by cognitive psychologists. For instance, Ortony, Clore and Collins (1988) have suggested that, rather than look for distinct patterns in underlying physiological substrates (which, as I will describe in Chapter 2, tends to be a fruitless endeavour when trying to differentiate between types of positive emotions) a more practical and useful way to differentiate between emotions is to try to categorise them in terms of the different kinds of antecedent appraisal we take to be responsible for them. In this thesis I do not

intend to measure cognitive appraisal processes *explicitly*, I instead use events as the unit of analysis; however, the implied notion of appraisal is captured within the event categorisations which I adopt, as I will explain in more detail in Chapter 4. An aim of this thesis, therefore, could be to see whether there might be particular types of positive emotional experience (defined in terms of the words used to describe the experience) which are predicted by some appraised event categories but not by others. In other words, I could try to establish whether people will tend to use the same positive emotion term or terms every time they describe a reaction to certain type of event at work (for example, getting on well with a colleague), and another set of common positive emotion terms every time they describe a reaction to another qualitatively different type of event (such as enjoying a task at work). If the emotional experiences associated with these events were each found to be associated with different cognitive and behavioural outcomes, one could argue that this provides further evidence for distinct types of experience.

In this thesis, I will use both of these different methods for attempting to find a structure of positive emotions at work. I will adopt a list of various positive emotion words (the choice of this list will be described in Chapter 2) and, based on the workers' ratings of these emotion words, I will try to uncover any underlying structures by (a) conducting factor analytic work, and (b) searching for patterns of common antecedents. I deal with these aims in Chapter 5 of the thesis.

1.3.7. Positive Emotions in Different Occupational Contexts

Given that momentary positive emotional experiences have been so rarely studied in organisational contexts, to develop a literature it would seem vital to study these experiences across a range of occupations (see Briner, 1999). Is the incidence of specific positive emotions different across different types of job or organisation? Also, do the events that produce positive emotions vary dramatically from one occupation to another? Intuitively, one would imagine that the nature and causes of positive emotions experienced by investment bankers is likely to differ somewhat from those experienced by social workers.

I want this thesis to have some immediate practical as well as theoretical value, so another of my aims is to obtain data from a large enough representative sample to be able to make generalisations for that particular population. Therefore, for this thesis, rather than dividing my time and resources in sampling positive emotional experiences across a number of occupations, I decided to do a more in-depth study with one particular occupational population: I chose to study the positive emotional

experiences of home care workers for the elderly. In Chapter 3 of this thesis, I describe in detail the nature of the population, and I provide an explanation of why I chose it for my thesis on positive emotional experiences at work.

However, it is important to note at this point that this thesis is primarily on the topic of positive emotions at work, rather than on the topic of positive emotions in care workers *per se*. Although positive emotions in care work may clearly vary from those in other occupations, I believe many of the themes I will discuss in this thesis are also likely to apply to other occupational groups, as I will argue in Chapter 9. Therefore, throughout this thesis I will be primarily concerned with the theoretical issues concerning the study of positive emotional experiences at work. This does not contradict the point I made in the previous paragraph: I am also keen to evaluate the practical relevance of the empirical work conducted in this thesis, so I will refer to it at several point throughout the thesis, and in particular in Chapter 8. What it *does* mean is that throughout this thesis there will be a greater emphasis, within the research I present, on the theoretical aspects of positive emotions at work (as discussed in this introductory chapter) rather than on how this thesis fits with existing sociological studies of home care workers for the elderly (see e.g. Offer, 1999); this is a psychological study of positive emotions at work rather than a sociological study of positive emotions in care workers.

1.3.8. How Best to Measure Positive Emotions and their Correlates?

Throughout this chapter I have endlessly pointed out the limitations and gaps in the existing literature on positive emotions at work. When one actually starts to tackle the topic of study it immediately becomes obvious why these limitations and gaps exist: emotions and their correlates are very, very difficult to study with any degree of accuracy. Unlike many other psychological phenomena, for example attitudes, which are seen as being relatively stable constructs, emotions are variable and transient, and are therefore much harder to measure. Therefore, I will now dedicate an entire chapter (Chapter 2) discussing how to go about measuring positive emotions in work settings, where I outline my own choice of methodology for addressing the research agendas I have just set out. Given that the methodology which I will adopt in this thesis represents a relatively novel approach to studying positive emotional experiences at work, one of the aims of this thesis will be to evaluate the utility of this methodology for this kind of research.

1.4. Summary

In this chapter, I hope that I have succeeded in providing a compelling argument for the urgent need to study momentary positive emotional experiences at work. As I have pointed out, most of the existing literature that has addressed the nature, causes and outcomes of positive affect at work has overwhelmingly relied on the construct of job satisfaction. I have argued that this construct is an inadequate marker of a worker's positive affective experiences, and also argued that studying positive emotions – with emotions defined here as momentary states that arise in response to certain events at work – may help us to better understand the effect of work itself on an individual's well-being, their work behaviours, and their attitudes towards their work. In particular, in this thesis I intend to demonstrate that by studying positive emotions as momentary reactions to events at work – rather than as chronic and fairly stable affective states – we can obtain a far more detailed account of their proximal causes and consequences.

I have introduced a fairly recent theory of work affect, Weiss and Cropanzano's (1996) Affective Events Theory, which I argue may represent a useful framework for studying positive emotions at work. I have also reviewed the general psychological literature on positive emotions, and pointed to a number of experimental studies which suggest that positive emotional states may be linked to a number of cognitive and behavioural outcomes that can be considered beneficial – in the short-term but also in the longer run – to the individual who experiences them and to the organisation that employs that individual.

Lastly, I have outlined a number of gaps in our knowledge and set out a research agenda which I aim to address in this thesis, looking at a particular occupational population: home care workers for the elderly. Specifically, my aims in this thesis can be summed up in the following points:

- To conduct exploratory work to uncover some of the types of events that produce positive emotions at work, and to provide a framework of the various different (situational and individual) antecedents of positive emotional experiences;
- To conduct exploratory work to uncover the types of cognitive and behavioural outcomes which are associated with positive emotional experiences at work, helping to provide a framework of these various different outcomes;

- To evaluate the relationship between positive emotions at work and work attitudes such as job satisfaction, in particular testing the Affective Events Theory's propositions that (a) the experience of positive emotions at work predicts work attitudes, and (b) that positive emotions and work attitudes differ in terms of their antecedents and outcomes (Weiss & Cropanzano, 1996);
- To propose a model of workplace positive emotions, based on Weiss and Cropanzano's (1996) Affective Events Theory, and incorporating findings from the exploratory work conducted for this thesis;
- To explore the structure of positive emotional experience at work, by examining the factor structure of several positive emotion words and by examining any common patterns of antecedents.

Although not a primary aim of this thesis, given that much of the research conducted for this thesis involved the use of a relatively novel methodological tool for assessing emotion at work (as I will now describe in Chapter 2), I would also like to include a summary evaluation of the methodology that was adopted. This evaluation, however, is not central to the thesis itself, and is attached as an appendix (see Appendix E).

2. How to Measure Positive Emotional Experiences at Work: A Methodology

This chapter will be divided into three sections. I will begin by discussing some of the key epistemological issues that surround the measurement of emotions, in particular with regards to the different types of *emotion data* which are available to the researcher. I divide these into two broad categories: self-report data and non-self-report data. In this section, I also provide an explanation of my own approach, which involves exclusively the use of self-report data.

Then I will review the different methods that are available for obtaining self-report data on emotions and their correlates, outlining the different options which I considered before deciding on a particular approach. Having done this, I conclude the chapter by outlining the research design which was eventually adopted for this thesis, including a subsection where I describe and justify the measure that was chosen for collecting data on positive emotions.

2.1. Assessing Emotions: Self-Report vs. Non-Self-Report

In many ways, the epistemological issues which surround the measurement of (positive) emotions in humans are the same as those which affect the measurement of all psychological phenomena. Whilst some psychologists would argue that for psychology to be truly scientific it needs to model itself on the natural sciences (such as chemistry and physics), and rely exclusively on systematic methods of observation (such as experiments) for collecting data, many others argue that psychology is a quite different kind of science and therefore calls for different methods (Roth, 1990). Whereas the former group – often behaviourist psychologists – would argue that we should focus on external, observable behaviour, the latter group argue that to study and understand human behaviour we need to go further and ask our subjects to *introspect*, to put into language what is ‘going on in their mind’.

The study of emotions has been particularly marked by this debate. Wallbott and Scherer (1989) have argued that the major theoretical traditions in the history of psychology “have not been kind to emotion research, particularly as far as the study of emotional experience is concerned” (p. 55). They point out that when behaviourism was the dominant school of thought in psychology, emotions were relegated to the role of an arousal factor which might intensify behaviour. In the specific case of *workplace* positive emotions, it seems that even after the cognitive revolution in

psychology which began in the 1960s, although organisational psychologists became increasingly interested in introspection, they tended to be more interested in obtaining global self-reports of cognitive constructs (disguised as ‘affective states’) such as job satisfaction, as I described in Chapter 1.

In my own working definition of emotion which I provided in Chapter 1, I stated that one of my central foci of interest in emotions was the *subjective experience* which is said to be one of the defining features of an emotion. As I will argue in this section, this is probably the most sensible unit of analysis in a thesis such as this one, and furthermore, self-report is the only feasible way to access this kind of phenomenon. However, before proceeding to discuss self-report measures, I will provide a brief summary of alternative ways of assessing emotions, as well as an explanation of why I think they are unsuitable for the study of positive emotions in work settings.

2.1.1. Non-Self-Report Methods of Assessments

In Chapter 1 I pointed out that most contemporary definitions of emotion tend to agree that emotions are defined by a number of components, of which subjective experience is only one.

Most non-self-report measures of (positive) emotions tend to focus on some of the other more ‘visible’ components of emotions, for example physiological measures of emotions, ratings of emotional expressions and the associated observable behaviours which result from action tendencies. I will now provide a short description of each of these non-self-report measures.

Physiological measurements probably represent the oldest recorded objective attempts to measure emotional states (see James, 1884). These often involve measures of heart rate, blood pressure, bodily temperature and respiration amplitude, among many others. Lucas, Diener and Larsen (2003) argue that these types of variable can be useful for distinguishing positive from negative emotions, or among different negative emotions, but are of limited value for discriminating between positive emotions. Scans of brain activity (for example, EEGs and PET scans) are also possible sources of information; Davidson (1992) reviewed the evidence and concluded that the left anterior region of the brain seems to be responsible for positive emotional experiences. Some neuropsychological research further suggests that positive emotions are linked to increased dopamine activity (Ashby, Isen & Turken, 1999). Again, however, it seems unlikely that individual positive emotions could be discerned by this kind of approach. In recent years, some researchers have argued that

some measures of immune response (such as changes in salivary concentrations of immunoglobulins and lymphocyte cells) may provide far less *invasive* objective measures of people's emotional states (see e.g. Meijman, van Dormolen, Herber, Ronger, & Kuiper, 1995), although at present it seems that such measures would be more useful in capturing variations in general negative affective states (such as stress) than in positive emotional experiences.

Emotional expressions can also be assessed as a marker of emotion. It is possible to train raters to look for specific signs of emotions in the target individual's facial expression. For example, Ekman and Friesen (1975) designed a Facial Action Coding System (FACS) which allows raters to make judgements about emotions based on specific muscle movements in the face. Although relatively reliable and valid, this kind of technique often requires substantial training; furthermore, it (again) only reliably measures general undifferentiated positive feeling and not specific positive emotions (Lucas et al., 2003).

In addition to ratings of emotional expression, it is also possible to use more general ratings, provided by an *informant*, of the target individual's emotional experiences. Friends, family, or trained raters may be asked to rate how frequently or intensely a target participant has experienced an emotion. Diener, Smith and Fujita (1995) found that self-reports of positive emotions correlated over .50 with informant reports of positive emotions.

Finally, and given that we know that emotions affect cognitive processes and action tendencies, researchers can make the most of this knowledge by measuring the individual's cognitive performance and behaviours which result from action tendencies. As Lucas et al. (2003) point out, the target individual may provide an inaccurate self-report of how happy they really feel at a given moment (for example, due to social desirability issues), but the individual's performance on a cognitive task which is known to be affected by positive emotional states may help to identify how happy the individual really is.

2.1.2. Suitability of Non-Self-Report Measures for Studying Positive Emotions at Work

Overall, non-self-report measures of positive emotions have both strengths and weaknesses. Given that emotions are known to involve more than just subjective phenomenological experience and cognitive appraisal processes, non-self-report measures are important for improving our understanding of the whole emotional process. Whenever possible, triangulation of methods – yielding objective and/or

subjective data – is always preferable within any scientific study, as it helps to improve the validity of any conclusions that are drawn from it (see Ivancevich & Matteson, 1988). However, objective non-self-report measures of positive emotions pose a number of problems to researchers, and obtaining such measures in work settings is even more troublesome.

Firstly, as pointed out by Lucas et al. (2003), although there are a number of facial and physiological indicators that have been shown to be associated with self-reports of emotion, these indicators are also associated with other non-emotional processes and, as a result, they are often only weakly correlated with the target individual's subjective self-reports.

Secondly, as mentioned already, training raters to correctly identify emotions can be extremely time-consuming. Furthermore, to observe the target individual in a real-life setting, for example at work, one would have to follow them around all day waiting for an emotional incident to happen in order to get a chance to get some data! To do this for a large number of persons in order to obtain a systematic sampling of a number of emotions over time would seem to be an almost impossible task. As I outlined in Chapter 1, in this research I am interested in recording all positive emotions experienced at work over a certain period of time in order to see whether they have a cumulative impact on work attitudes, this kind of approach would be completely impractical.

Physiological measures are even more problematic. Although it is hard to find any examples in the limited existing literature on positive emotions at work, some examples of attempts to obtain physiological measures of *negative* affective states can be found in the literature on work stress (see Cohen, Kessler & Gordon, 1995; Hurrell, Nelson, & Simmons, 1998). Such studies, however, are relatively rare, and often report a number of problems. For instance, Folger and Belew (1985) noted the difficulties in determining whether accelerated heart rate meant increased physical exertion or general activation triggered by a negative emotional state. Hurrell et al. (1998) point out that cardiovascular variables are strongly influenced by transient events such as talking or being touched, and that individual differences in reactivity may render such measures not sensitive enough for most studies. It is easy to imagine this kind of issue *particularly* posing problems in a study of positive emotions. The very (generally unpleasant) fact of being connected to any apparatus which is measuring physiological changes is likely to reduce the likelihood of experiencing positive affective states (and of accurately measuring these should they occur), not to mention how impractical it would be to take measurements from an individual like

this all the way throughout his working day, capturing each of his spontaneous positive emotional experiences.

Finally, as mentioned above, these objective measures of emotion tell us little about differences between specific positive emotions which, as I stated in Chapter 1, is an aspect of emotions which I am interested in examining in this thesis.

In conclusion therefore, given the particular aims of my study, it would seem that non-self-reports, although desirable and valid complements to some studies of emotional experience, are too impractical to be of much use for the present thesis. As Lucas et al. (2003) point out, “there is still much work that is needed ... before the various non-self-report measures can be incorporated into standard assessment batteries” (p. 212). I now move on to discuss self-report measures of (positive) emotions, which I will be using in the present thesis, including a consideration of their strengths and weaknesses.

2.1.3. Suitability of Self-Report Measures for Studying Positive Emotions at Work

Self-report methods of emotion generally require respondents to give an account of the subjective experiential component of the emotion. They can also be used to collect information about the cognitions and behavioural intentions which are said to a part of emotional experience. In the next section I will outline the various different methods which are available to the researcher interested in obtaining self-reports of (positive) emotions. First however, I would like to consider some of the limitations and strengths of these types of emotion measurements, and to explain why I think they are the most suitable for the present thesis.

The limitations of self-reports methods of assessing emotions are well documented. Some argue that when people are asked about their own subjective experiences they may provide deliberately inaccurate reports, and that, in any case, it is impossible to ascertain the validity of the latter. *Social desirability* bias is said to be a particularly troublesome confounding variable (Hurrell et al., 1998). The reporting of emotional experiences, in particular negative ones, may in some cases involve tapping into highly personal issues which individuals might not want to readily acknowledge. Even the reporting of positive emotions may be deliberately distorted: answering questions about what makes us happy sometimes involves revealing our personal values, which some respondents may not be prepared to share with a researcher. Cultural expectations may also confound self-reports; Diener, Sandvik and Larsen (1985) found systematic differences in the reporting of emotion intensity between male and female respondents, and between older and younger respondents,

and they argued that males and older respondents may under-report the intensity of their experiences to fit in with what they believe is expected from them in their culture. Both males and older respondents may believe that they are “expected to be more ‘mature’ and less emotional” (p. 545).

In particular, some psychologists and epidemiologists interested in studying affective states at work tend to argue against relying on self-reports when these are used to simultaneously collect data about emotional states and ratings of aspects of the work environment which may be considered antecedents of these states. This kind of approach has traditionally been commonly used in the assessment of general negative affective states (stress) and their situational antecedents (stressors), and has received criticism from some (e.g. Kasl, 1978; 1998) who argue that such cross-sectional designs encourage a number of biases. For instance, respondents who report unpleasant recent emotional states and are then asked to rate aspects of their work environment, may then systematically give unfavourable ratings, either because they suddenly attribute their ill feelings to their work environment, or so as to provide a consistent set of responses. Equally, Kasl (1978; 1998) has argued that such an approach to measurement may result in conceptual overlap between the dependent variable (the affective states) and the independent variable (the features of the work environment). One could argue that a similar pattern might arise in the simultaneous assessment of *positive* emotional states and their situational antecedents.

Despite the fact that, as I have just outlined, self-report methods of assessing emotions are often subject to a number of shortcomings, I will now argue that, essentially, workers’ self-reports represent the only feasible and indeed meaningful way of collecting data on positive emotions for this thesis. I will briefly outline some of the general advantages of using self-reports to collect data on emotions, as well as explaining why I believe that self-reports are important for this thesis in particular. Additionally, I point out how the effects of some of the shortcomings of self-reports can be mitigated.

Firstly, it is problematic to obtain data about the situational antecedents of emotions by anything other than self-report means. Emotions are said to result from a process of event appraisal (e.g. Lazarus, 1991); it is the very significance or meaning that an event has to an individual person that determines the presence or absence of an emotional response to that event. It is hard therefore, to see how one could objectively decide which events should produce positive emotions without access to people’s self-reports. Attempts to define objective situation characteristics that can reliably be shown to produce particular emotions have generally produced unsatisfactory results (Wallbott & Scherer, 1989). It seems that a better idea would be to obtain a large

number of self-reports of situations that have evoked various kinds of emotions from a large number of individuals. Related to this, self-report studies can also help to focus attention on the dispositional differences between individuals which are often important in determining how people respond emotionally to events. Given that it is relatively easy to obtain self-reports, it is possible to study a large number of subjects and to obtain a fair amount of information concerning individual factors. Having done this, statistical tests can then be used to determine the relative contribution of such individual characteristics towards emotional processes. Another advantage of self-reports is that they can help us to distinguish among different specific (positive) emotions; as I mentioned above, objective measures of physiological and expression changes only reliably measure global undifferentiated positive emotional states.

On balance, it seems that for the kind of questions I am interested in addressing in this thesis, self-report methods of emotional assessment are the only realistic option. Firstly, I am interested in looking at the antecedents of the experience of positive emotions, both situational (the events which are appraised to produce an emotional reaction) and individual (the dispositional factors which affect how these events are appraised). As mentioned in the previous paragraph, only self-report measures can reliably provide information on these kinds of variables, because since events only exert their influence on an individual through their appraised meaning or significance, it is hard to see how these might be measured objectively.

Secondly, I am interested in examining the nature and structure of the specific positive emotional experiences themselves; although in theory one can measure the objective underpinnings of an emotional experience (in terms of physiological and expressive changes), self-report is our only access to the subjective feeling state. As described above, using measurements of physiological changes and emotional expressions, as well as being massively impractical and intrusive, would at best only produce a vague marker of a very general positive affective state.

Thirdly, I am interested in looking at the outcomes of positive emotional experiences, in terms of associated cognitions and behaviours; although observations of behavioural outcomes might constitute a possible additional source of objective data, it seems likely that the considerable costs involved in obtaining such measurements would outweigh the potential benefits, particularly given that such measures are not always that accurate in the first place. Self-report is probably our most meaningful access to the motivational changes and action tendencies that accompany the subjective feeling state, because even though action tendencies may often result in observable and objectively recordable behaviours, emotions are often internally regulated, and individuals may succeed in controlling expressive behaviour,

so we can never be sure how accurate our observations are (Wallbott & Scherer, 1989). This issue may be particularly relevant to positive emotions; if, as Fredrickson (1998) has suggested, positive emotions can give rise not just to action tendencies but also to *thought-action* tendencies – i.e. changes in cognitive activity (as I described in Chapter 1) – self-reports are clearly the only way to access these internal states.

It seems therefore, that although self-reports are not infallible, they are likely to be the most practical and useful option for the present thesis. Furthermore, I believe that the impact of the shortcomings associated with self-reports can, in some cases, be partly mitigated. Firstly, to remove the likelihood of shared response bias and conceptual overlap between variables (see Kasl, 1978; 1998), different sources of self-reports can be used; this is an approach which I adopt here in this thesis, as I will become clear later on in this chapter. Secondly, to avoid prompting individuals' attributions of the antecedents and outcomes of (positive) emotional experiences (for instance, by supplying them with pre-imposed constructs in a questionnaire), taking measurements of these experiences in real-time (i.e. 'as they happen') would make it possible for respondents to identify and describe in their own words the situational antecedents (events) and outcomes (changes in cognition or behaviour) of the experiences. Again, this is an approach which I adhere to in this thesis, at least in the early stages of data collection.

Having outlined my reasons for choosing self-report methods for the present thesis, I will now provide an overview of the various different methods and modes of data collection which are available to the researcher interested in obtaining self-reports of (positive) emotions.

2.2. Different Methods of Self-Report

There are a number of ways of obtaining self-reports of emotional experiences. These can be broadly classified into *verbal* self-reports, such as might be obtained in an interview, and *written* self-reports, which can be provided in questionnaires and diaries, for example. A further distinction can be drawn between methods: whereas some may assess emotional experiences *retrospectively*, asking the respondent to recall the details of emotional incidents, other assess these experiences *in real-time*, as they occur. In this section I provide a brief overview of the various verbal and written methods of collecting self-reports which are available, and consider the differences between retrospective and real-time self-reports. Parts of this section are somewhat narrative in style, as I try to provide a background commentary of the different options which I considered before deciding on a particular approach.

2.2.1. Interviews

Perhaps the most comprehensive approach to obtaining self-reports on emotional experiences are in-depth interviews, in which the interviewer can explore the details of an emotional experience by interactive questioning of the subject (Wallbott & Scherer, 1989). The very interactive nature of interviews makes them an incredibly flexible source of potentially very rich data. For this reason, in the very early stages of this study, I considered using some interview methods, such as cognitive mapping, to obtain highly detailed information about respondents' subjective positive emotional experiences, and their perceived causes (situational antecedents) and consequences (cognitive and behavioural outcomes). For examples of such studies of emotional experience, see Harris, Daniels and Briner (2000), Holden-Peters (2001) and Ceja (2004). Interview methods such as these sometimes have an advantage over non-verbal self-report methods such as questionnaires in that they enable the respondent to make direct contact with the researcher, making it possible to form a rapport between the two. In some cases, this may give the data collection process a greater transparency and a lower tedium factor, which in turn helps to make it a more ethical approach (Brown, 1992).

Unfortunately there are a number of shortcomings associated with interview methods, some of which make them particularly unsuitable for the present thesis. Firstly, interviews can be very costly and time-consuming, since every subject has to be studied individually. Secondly, although having direct contact between the researcher and the respondent may have its advantages, it also may cause the respondent to be less willing to report truthfully about their emotional experiences than they would be in a more anonymous procedure. As I argued above, even reporting *positive* emotional experiences to a relative stranger may make people feel uncomfortable. For this reason, some argue that anonymous non-verbal methods such as questionnaires are preferable for self-reports of emotional experiences (Wallbott & Scherer, 1989). However, there is a further, more serious reason why interview methods are likely to be unsuitable for the present thesis. Interviews can generally only be used to obtain information about a worker's *past* emotional experiences at work. To obtain verbal assessments of workers' emotional experiences *in real-time*, one would have to literally follow the worker around all day waiting for an emotional incident to happen, and then interview them. As I pointed out above, such an approach would be far too impractical and intrusive for an empirical study in a real-life work setting.

On balance, therefore, interview methods have both strengths and weaknesses, but they are only really suited to obtaining *retrospective* self-reports of emotions. As I will argue below in subsection 2.2.3, such types of self-reports are likely to be insufficient for the aims of the present thesis. Nonetheless, interviews do play a small part in my research design for this thesis, as will become clear later on in this chapter. Next, I will describe some of the available ways of obtaining non-verbal self-reports of emotional experience.

2.2.2. Questionnaires

Within most psychological research, questionnaires tend to be the most common alternative to interview methods for obtaining self-report data. In this subsection, when using the term questionnaires I am referring to the paper-and-pencil assessments that are taken *at a single point in time*. It is of course also possible to complete questionnaires in an *on-going* fashion, for instance at several points in time over a given period. These types of questionnaires are usually referred to as *diaries*; I will deal with these separately in subsection 2.2.4 below.

Questionnaires often contain scales of emotions, most often measuring the frequency or intensity with which respondents have experienced emotions. The types of scales and number of items can vary, and generally depend on the researcher's particular goals (I discuss my specific choice of scale in the next section). Many of the principal advantages of using questionnaires have generally been referred to already in this chapter. Questionnaires make it possible to measure psychometric measures of personality and other individual variables that may contribute towards an individual's experience of emotions. Also, very importantly, because they are easier than interviews to implement and analyse, they enable researchers to obtain a large number of self-reports. They also help to protect the anonymity of respondents which, when measuring potentially sensitive topics such as emotional experiences, is an important factor to bear in mind (Wallbott & Scherer, 1989).

Questionnaires are undoubtedly the methods of self-report that have most often been used in past studies of emotional experiences at work. They are one of the cornerstones of much of the work stress literature (Cooper, Dewe & O'Driscoll, 2001). As I described in Chapter 1, positive emotional states at work have typically been measured much less frequently than their negative counterparts. However, as I reported in Chapter 1, some studies do exist; researchers have sometimes used questionnaires to measure the effect of positive affective states on outcomes such as absence (George, 1989) and group performance (George, 1995). What these and a

great many other similar questionnaire-based studies of workplace affect have in common is that they always measure emotional states *retrospectively*, typically asking respondents to report how they have felt at work over the past week, or month. Such as they are, cross-sectional questionnaire designs can only really measure workplace emotions in this way. As I will discuss in the next subsection, assessing emotional states in this way can be problematic.

On balance, I believe that questionnaires have a number of strengths which make them useful tools for a thesis such as this one. I believe their greatest strength lies in their capacity to provide easy access to data on relatively stable individual factors, such as dispositions and demographic information, which are seen as contributing towards the experience of positive emotional experiences. They are also ideal for measuring stable psychological constructs such as attitudes (for example, job satisfaction). However, when it comes to measuring less stable subjective emotional states, and measuring the situational antecedents and cognitive and behavioural correlates of these states, questionnaires – as they have been used traditionally – can only obtain retrospective self-reports of emotions, much like interviews. As I will argue in the next subsection, such types of self-reports are likely to be insufficient for the aims of the present thesis. To be used to their maximum potential, self-reports of emotional experiences in questionnaires need to be made over time, coinciding with the actual experience of these emotions. When used in this way, questionnaires become *diaries*; I will describe these in subsection 2.2.4 below. Nonetheless, questionnaires still play an important part in my research design for this thesis, as will become clear later on in this chapter. Next, I will describe some of the limitations of relying on retrospective self-reports of emotional experiences.

2.2.3. The Problem with Retrospective Self-Reports of Emotional Experiences

In Chapter 1, I defined emotions as reactions to (appraised) events, as temporary ‘heat-of-the-moment’ states. In this respect, they are quite different to other more stable psychological constructs such as attitudes. As I also pointed out in the previous chapter, since Hersey’s (1932) seminal study, the vast majority of research on positive affective states at work has relied on retrospective reports of these states. Using these retrospective self-reports of emotional experiences assumes that people are able to accurately recall the details of these temporary emotional states; in many cases, surveys ask workers to recall emotional experiences that happened weeks previously.

In recent years, certain researchers interested in workplace emotions have pointed out that, actually, most people are relatively bad at accurately recalling these

experiences (e.g. Fisher, 2002). It seems that people systematically overestimate the frequency and intensity with which they have experienced both positive and negative affect when reporting retrospectively compared to the aggregate of multiple real-time reports during the same period (e.g. Barrett, 1997; Diener, Smith & Fujita, 1995; Thomas & Diener, 1990). After reviewing a number of studies that used both types of measures, Fisher (2002) has pointed out that “aggregated real-time and retrospective reports of emotional experiences share only 36-58% of their variance” (p. 5).

For instance, retrospective reports of emotional experiences can be contaminated by mood at the time of reporting (e.g. Brief, Butcher & Robertson, 1995). Some studies have also found that people tend only to recall information about the most intense moment of a particular emotional episode, and are less good at remembering its duration (Fredrickson & Kahneman, 1993; Fredrickson, 2000). Other studies have found that people’s memory of emotional experiences over a given time period can be determined by their previous *expectations* of what would happen or should have happened during that period, not just by the experiences themselves (e.g. Mitchell, Thompson, Peterson & Cronk, 1997); in other words, if we expected to find a particular time period enjoyable, we might be more likely to remember it as such afterwards even if at the time we did not enjoy it as much as we had expected we would. Lastly, some have found that retrospective ratings tend to be influenced by personality, such that neurotic individuals remember experiencing more negative emotion than they report on a momentary basis, and extraverted individuals remember more positive emotion than they report on a momentary basis (Barrett, 1997).

In light of this collective evidence, some have recently argued that it is best to assess emotional experiences in real-time and then aggregate these reports into a measure of actual affect experienced over the time period of interest (Fisher, 2002; Kahneman, 1999). As Grandey et al. (2002) correctly point out, this is how recent theories of workplace emotion such as Weiss and Cropanzano (1996) are intended to be tested i.e. *across time*. An aim of this thesis is to test whether the cumulative experience of momentary positive emotions at work has an impact on stable work attitudes. If retrospective reports do not provide particularly accurate measurements of such momentary emotional states, an aggregation of momentary reports collected in real-time would seem to be preferable.

However, it is one of the other aims of this thesis which makes relying on retrospective reports of emotional experiences in this research seem like a particularly risky endeavour. As I stated in Chapter 1, I aim to obtain information about the situational antecedents (events) and the types of cognitive correlates (e.g. thought-action tendencies – see Fredrickson, 1998) and behavioural outcomes (e.g. pro-social

behaviours – see Isen & Baron, 1991) which are associated with positive emotional experiences. But if people find it hard to accurately recall the frequency and intensity of their emotional experiences, can we expect them to be any better at accurately recalling the precise sequences of events that led up to the emotional episode, or at recalling the precise thoughts or behavioural intentions they had ‘in the heat of the moment’? Some research has found that, besides being inaccurate in recalling the feelings themselves, people are particularly bad at recalling the finer details of their emotional experiences (Christianson & Loftus, 1991), and from this one might argue that retrospective reports are likely to be of limited value in capturing people’s descriptions of the (work) events that lead to their emotional reactions, and of the cognitive and behavioural changes that were associated with the subjective feeling state. It seems that measuring these experiences in real-time would provide far greater accuracy, and it would allow us to explore in more detail the precise role that positive emotional experiences play throughout a day at work.

For these reasons, I believe that methods which make it possible to obtain real-time reports of momentary emotional experiences would be the ideal choice for this thesis. I now review one of the methods that are available to researchers for obtaining precisely this kind of data: *diaries*.

2.2.4. *Diary Techniques, and their Suitability to this Research*

Diaries are another source of written self-reports; they differ fundamentally from the common questionnaire in that they collect information linked to a temporal framework; data is collected over time, and at intervals which can be set by the researcher. The time period over which the diary is generated also depends on the researcher’s goals: they can vary from a few hours to several years and entries can range from every few minutes to every few months. The reports in a diary can differ substantially in the amount of structure imposed and flexibility allowed by the researcher. For example, diary studies may use reports which are specially elicited by the researcher; these can be *semi-structured*, such that respondents are asked to provide *open-ended* textual information in response to specified questions (yielding qualitative data) or *structured*, such that respondents are asked to provide very specific quantitative data, for example by ticking boxes or rating items in a scale, much as they would in a questionnaire.

Diaries have a number of fundamental advantages over the self-report measures I have discussed so far, some of which are particularly important for the present thesis. Firstly, because measurements can be taken over time, the researcher can specify that

self-reports are made to coincide in time with the particular phenomena of interest (for example, emotional experiences), so there is a dramatic reduction in the likelihood of retrospection (the shortcomings of which I have dealt with already). But equally important, diary techniques permit the examination of reported events and experiences in their natural, spontaneous context (Bolger, Davis & Rafaeli, 2003). Given that they can be used with virtually any type of data, and any subject matter, they may be used to obtain reports of subjective feelings, and also (very usefully given the aims of my thesis) of the situational context of these experiences, and of any accompanying thoughts or actions. Also, they can be used in combination with other psychological methods, such as questionnaires, to provide a more rounded picture, or as part of the process of triangulation (Breakwell & Wood, 2000; Reis, 1994).

One particular strength of the diary approach is that respondents are typically familiar with the notion of what a diary is; if asked to keep a diary of their activities or thoughts every day over a fortnight people are likely to understand the task. As Breakwell and Wood (2000) point out, this is particularly helpful when dealing with individual participants who are especially anxious, suspicious or ignorant about psychological assessments.

One of the greatest advantages of the diary approach is that it yields information which is temporally ordered, telling the researcher what the sequence of events, feelings and thoughts is across time. This is particularly useful in the current research, given that I am interested in determining the causes (antecedent events) and consequences (behaviours, cognitions, etc.) of positive emotions experienced in the workplace.

The diary is also useful in that it is a cheap and easy way of obtaining a lot of information from the same person over a considerable period of time and/or frequently. Given that diaries are usually paper-and-pencil measures, they are relatively easy to transport and therefore practical for studies where respondents are required to have them close at hand to record their daily activities, for example at work. Moreover, provided the respondents are given appropriate instructions, they can generate information often for long periods without the need for the researcher to be in contact.

Finally, diaries (like questionnaires) have an advantage over face-to-face methods such as interviews: if, as I suggested above, some people find it hard to talk about their positive emotional experiences to a stranger (for instance, because it might force them to tap into their personal values), the diary techniques might be a useful way to overcome this potential obstacle since it relies on iterative self-reporting, mostly

without any interpersonal interaction, therefore hopefully encouraging self-revelation and honesty.

Overall therefore, diaries are a good choice of method for collecting real-time self-report data of the kind I am interested in; as I will describe below in Section 2.3, they play a major role in this thesis. Nonetheless, I should point out here that besides the strengths associated with diary approaches, there are also a number of issues that need to be considered, since these can be problematic if not dealt with. However, I will also deal with these in Section 2.3, where I describe the measures I adopted to manage these issues. Before doing this, I will briefly describe some fairly modern alternative methods for collecting real-time data, and explain why I chose diaries instead of them.

2.2.5. Diaries vs. other Methods of Obtaining Real-Time Self-Reports of Positive Emotions

In recent times, advances in technology have brought researchers the option of using methods which are more sophisticated than the paper-and-pencil diary; electronic data collection methods of various forms have begun appearing over the last decade (Feldman-Barrett & Barrett, 2001; Shiffman, 2000). Typically these studies use handheld computer (palm-top computers, personal digital assistants), equipped with custom-designed questionnaire programs. For a review of these types of methods see Bolger, Davis and Rafaeli (2003).

Electronic data collection methods have a series of advantages over more basic diary methods. For instance, they provide time-stamps for responses, so it is possible to verify exactly *when entries* were made, providing a direct measure of compliance. Also, the programs on these computers minimize the risk of skipped questions (and missing data), since the items are typically presented in sequence, ending only when the whole entry has been completed.

However, one of the key advantages of electronic data collection methods is actually redundant in my particular study. Electronic devices may be useful in that they can be programmed to emit a signal so that the respondent remembers to make an entry at the right time (watches with alarms are also used to this end). In some designs, alarms are programmed to go off randomly throughout the day, so as to obtain random samples of people's daily experiences (see e.g. Larson & Csikszentmihalyi, 1983). However, this kind of signal-contingent self-reports are not directly pertinent to my study. In my thesis, I am interested in emotions, which – as I pointed out in Chapter 1 – differ from other affective states such as mood in that they are about an event (Frijda, 1993). Signal-contingent sampling of experiences may be

very suitable for collecting random sample of *mood* states, but since emotions depend on an event, it follows that the real-time self-reports of emotional experiences (including their cognitive and behavioural correlates) should be contingent on the occurrence of an emotion-inducing event. As Grandey et al. (2002) point out, an *event-contingent* experience sampling approach is the only real way to be sure that what we are measuring are emotions and not moods.

Electronic data collection methods also have a number of disadvantages. Probably the most obvious one is the cost, both in terms of the development of the appropriate program and in terms of their maintenance. Bolger et al. (2003) point out that, at present, “affordable handheld devices leave much to be desired in technical terms. Font size tends to be small, visual contrast is not very sharp, and the battery power of these devices does not always suffice for longer studies” (p. 598). Perhaps the most definitive reason why I believe these methods are inappropriate for this particular thesis relates to their ‘user-friendliness’, at least to the untrained respondent. Bolger et al. (2003) report that the researcher may need at least 30 minutes to acquaint participants with the use of an electronic diary. This issue would be particularly problematic for my study, given that the workers in the sample I have chosen do not, in general, tend to use computer equipment in their work.

In conclusion, I believe paper-and-pencil diaries are likely to be more useful for my particular research design. I hope I have also succeeded in explaining in this subsection why event- rather than signal-contingent experience sampling is appropriate in my study; I return to this point again in the next section of this chapter, where I now begin describing my design.

2.3. My Research Design

In this section, I begin by explaining how the choice of methodologies for this research was pragmatically centred on addressing the aims of this thesis, rather than on an explicit adherence to particular epistemological stance. I reiterate the aims of this thesis, discussing at the same time the best way to address these methodologically. I then outline the methods of self-report that were used to collect the data needed to address these aims. As I will describe, the data collection process was divided into two separate stages. I also dedicate separate subsections to (a) describing precautions which were taken with regards to the particular methods that were adopted for data collection, (b) outlining and justifying my choice of specific measures and scales, and (c) introducing the data analysis techniques that were used

in this thesis, although I describe these in more detail in the chapters where I present my findings (Chapters, 4, 5, 6 and 7).

2.3.1. Quantitative and Qualitative Approaches to Studying Emotion at Work

In the last couple of decades, research on affect at work has been marked by an intense debate surrounding the relative merits of quantitative and qualitative methodologies for studying people's emotional experiences at work. The traditional approach to studying workplace negative emotional experience, or work stress, has tended to rely heavily on positivist quantitative methodologies, placing a great deal of emphasis on developing valid and reliable instruments for measuring these experiences, on determining their causes and consequences, and on generalising findings to populations.

In more recent times, however, some researchers have argued that this approach, on its own, may not be the most useful or meaningful way of assessing and understanding people's emotions at work. Richard Lazarus, one of the most prominent researchers of emotion, argued in his latter years that qualitative methods might be more effective at capturing the richness associated with emotional experiences (e.g. Lazarus, 1999). Qualitative methods (which are often associated with a constructivist rather than a positivist paradigm) tend to be aimed at gaining an in-depth understanding of individuals, and of processes, rather than simply establishing cause-effect relationships. Fineman (1993) has further argued that a qualitative approach to the study of workplace emotion would enable researchers to develop theories "from the ground up", rather than forcing them to import theories from other areas of psychology. In the case of positive emotions at work in particular – given the traditional neglect of this topic of study – the appeal of such an approach seems intuitively obvious.

In this thesis, the choice of methodologies is primarily geared around addressing the specific aims of the thesis, without explicitly entering into a discussion about the relative merits of the positivist and constructivist approaches to social science and to the study of emotion (for such a discussion, see e.g. Cassell & Symon, 2004; Lincoln & Guba, 2000; Ponterotto & Grieger, 1999).

2.3.2. *Addressing the Aims of this Thesis*

In Chapter 1 I outlined the aims of this thesis. One of these was to explore the proximal causes of positive emotional experiences on the job, more specifically in care workers for the elderly. As I described in the previous chapter, most contemporary theories of emotion agree that emotions arise as a result of the appraisal of an event (e.g. Frijda, 1993); in the study of emotional states at work, only recently have researchers begun to explicitly acknowledge that *events* rather than stable background work features constitute the most appropriate units of analysis when we are interested in studying the situational antecedents of emotional experiences (Weiss & Cropanzano, 1996). Another aim was to explore the idea that positive emotions might lead to immediate changes in cognitive activity (for instance, by provoking thought-action tendencies – see Fredrickson, 1998) and behaviour (such as pro-social behaviours – see Isen & Baron, 1991) and even effects lasting throughout the day (such as improved mood – see Frijda, 1993).

Diary methods, which I have described above, offer the possibility of measuring self-reports of these correlates of emotional experience with a certain degree of accuracy. They also, as I pointed out, offer the possibility of collecting semi-structured reports, such as qualitative descriptions of experiences, and structured reports, for example, with quantitative ratings of these experiences. I believe both types of diary approach may be of value to address these aims of my thesis.

In order to find out about the events that bring about positive emotional experiences in population of workers that was chosen for this research, and the short-term outcomes (changes in cognitions or behaviours) associated with these experiences, and given that there are so few recorded attempts to measure these in the existing literature on workplace emotions, I believe that in the early stages of study a bottom-up, exploratory approach is needed to uncover the nature of these constructs. To this end, qualitative data collection methods may be useful. I believe that a semi-structured diary would give workers the opportunities to describe, in their own words: (a) the types of situations or events that are seen as being causal to the experience of positive emotions, including contextual background information that might help explain why a particular event is appraised the way it is (such as the series of events that lead up to that particular event, or what it is about the event itself that elicits an emotional reaction); (b) the types of thoughts and behaviours which are seen as following on directly from a positive emotional experience; and (c) any longer-lasting effects e.g. on mood throughout the day.

Obtaining this kind of data in a qualitative, bottom-up way instead of immediately imposing my own pre-conceptions of what these constructs are likely to be (and then waiting to see whether the respondents' ratings of these constructs confirm my expectations) has two main advantages. Firstly, it increases the likelihood of mapping what is really going on inside the worker's mind during an emotional experience, as they have a large amount of freedom in their descriptions and they are not limited by a set of pre-determined responses. Secondly, it strengthens any claims of actual relationships between associated variables, given that the constructs were determined in the first place by the respondents themselves, and associations cannot be said to be a result of shared response bias, or some of the other biases that are commonly attributed to self-report measures of affective states (see Hurrell et al., 1998).

However, whilst it is possible to analyse emotional experiences and their correlates exclusively in qualitative terms, for example by looking at emotion narratives (see Lazarus, 1999), I believe this approach would be insufficient for addressing some of the other aims of this thesis. For example, as well as uncovering these types of constructs, I am also interested in this thesis in (a) determining which types of events are the most frequent antecedents of positive emotional experiences in my sample of workers; (b) determining which types of cognitive and behavioural outcomes are most often associated with positive emotional experiences at work; and (c) establishing whether positive emotional experiences on the job are predictive of more stable work attitudes.

In other words, I am looking to establish the prevalence of the correlates of positive emotional experiences and looking for generalisable patterns of relationships. To evaluate the relationships between positive emotional experiences and these different variables, it would seem necessary to have a large number of observations for any strong conclusions to be drawn; a large number of observations would also allow greater flexibility in the choice of statistical analysis methods. Although each respondent may provide a number of diary entries, and in some cases these may count as individual observations, in many cases the diary entries would need to be aggregated for analyses. In particular, to evaluate the effect of an individual's emotional experiences on their work attitudes these diary entries would need to be aggregated at the level of the individual (for reasons which I will explain in Chapter 6), such that there would only be as many observations as there were respondents. Hence, there is a great need to maximise as far as possible the number of respondents.

A structured quantitative diary might offer an advantage in this way: a drawback of using semi-structured qualitative diaries methods is that they tend to be much more time-consuming for the worker to complete (since they involve actually writing down

the experiences in words), not to mention for the researcher to analyse (Breakwell & Wood, 2000). A quantitative diary, on the other hand, designed in a tick-box format – using the specific constructs elicited previously from the qualitative diaries as items – would be far quicker for a worker to complete as they go about their daily tasks at work. For example, such a diary might, rather than ask respondents to describe the causes and consequences of these feelings in their own words, instead provide them with a checklist of likely constructs and ask them to identify the relevant one(s) on each occasion, by ticking a box. Given the enhanced practicality of such a quantitative-format diary, I believe the rates of compliance for such a study would be far higher, and it would be possible to obtain a much larger respondent sample size.

A structured quantitative diary might also, rather than simply ask respondents to describe how they feel in their own words, allow them to go further and quantify the intensity of these experiences. Intensity ratings could then be used to investigate the factor structure of these positive emotions words, and also to examine whether the intensity of some types of positive emotions are more likely than others to be associated with the presence of a particular type of event, or a particular type of outcome. For instance, using this kind of approach I might find that high intensity ratings of pride are associated with events where the worker's efforts have been recognised, and with outcomes such as increases in momentary work motivation. On the other hand, intense feelings of another positive emotion, such as a liking another co-worker or client, might be linked with a completely different antecedent event, and with altogether different cognitive and behavioural outcomes.

Another reason why a quantitative approach would be desirable for the present research is that several of the other constructs which I want to consider are typically measured in quantitative terms, using interval scales. For instance, I am interested in seeing whether a number of individual factors, such as dispositions, contribute towards the experience of positive emotions. Such psychological phenomena are typically assessed with quantitative psychometric measures, using self-report methods such as questionnaires (Wallbott & Scherer, 1989). Furthermore, I am interested in seeing whether positive emotional experiences have longer-term effects on attitudes variables, such as job satisfaction, which again are typically assessed psychometrically.

For these reasons, I believe that a quantitative diary – designed on the basis of the constructs elicited in a previous qualitative pilot study – would be a valuable and important component of my design. The view that both qualitative and quantitative approaches to collecting data (representing constructivist and positivist paradigms, respectively) have a place in organisational research seems to be fairly widely

accepted nowadays. Lee, Mitchell & Sablinski (1999) argue that qualitative research is appropriate for purposes of description and interpretation. Using positivist quantitative methods, on the other hand, we can address questions concerning prevalence, generalisability and calibration. As I have shown in this section, the aims of this thesis overlap with both of these sets of themes. I will now describe the design I eventually decided on to address my various research questions.

2.3.3. *A Two-Part Study*

Two different types of diary study were conducted for the present thesis. First, a two-week exploratory *qualitative* diary study, and then, several months later and using different participants, a two-week *quantitative* diary study, at the end of which a questionnaire was also administered.

The exploratory qualitative diary was conducted on a reduced but representative sample of workers, with the aim of obtaining the following data: (a) descriptions of the kind of events or situations at work which lead to the experience of positive emotions; (b) descriptions of the kinds of thoughts which accompany the positive subjective feeling, and of any accompanying behaviours or behavioural intentions; and (c) descriptions of any effects which the positive emotional experience might have on their mood, thoughts or behaviours for the rest of the day. Although I decided to provide myself a specific scale of positive emotion words (as I will explain below in Section 2.3.5), I was also interested in seeing whether respondents would use any additional emotion terms to describe their pleasant subjective feelings; in this qualitative diary study they were given the option of doing so. This qualitative diary study, including the details of the procedure that was adopted, is described in detail in Chapter 4 of this thesis. This part of the data collection was carried out in May 2003; 9 participants contributed data.

Content analyses were conducted on the qualitative diaries, and the constructs which emerged for each for the different types of questions described in the previous paragraph were used to design a quantitative diary study, which was carried out in December 2003 / January 2004 and again (to obtain a larger total sample size) in March / April 2004. A total of 77 participants contributed data. The quantitative diaries essentially asked the respondents the very same questions about their positive emotional experiences, except that instead of providing written descriptions as responses, respondents were simply asked to identify their responses from checklists of items based on the constructs elicited in the qualitative diary study (see Chapter 4). The positive emotions themselves were measured using a scale which I will describe

below in Section 2.3.5, with the addition of any extra positive emotion terms which were elicited in the qualitative diary study. This quantitative diary study, including the details of the procedure that was followed, is described in detail in Chapters 5 and 6 of this thesis.

One of the aims of this thesis was to test the Affective Events Theory's (Weiss & Cropanzano, 1996) proposition that the cumulative experience of (positive) emotions contributes to the formation of work attitudes; the quantitative diaries were intended to capture data on these emotional experiences to test this proposition. The Affective Events Theory does not specify a preferred time period over which this kind of effect is likely to occur; I chose a time span of 2 weeks (replicating the studies of Fisher, 2002, and Grandey et al., 2002) This time period seems reasonable because it would enough allow time for a number of events to unfold, without being so long that (i) the effects (on longer-term outcomes) of any specific emotional episode would become diffused, and/or (ii) the respondents would become bored/fatigued and drop out of the study.

At the end of the two-week quantitative diary study, participants were asked to complete a questionnaire which measured all the other variables of interest for this thesis: (a) individual dispositions and demographic data that were seen as possible contributors towards the experience of positive emotions; (b) the respondents' perceptions of different features of their work environments, as possible background precursors of emotional events; and (c) the respondents' work attitudes and a long-term behavioural intention, as possible longer-term outcomes of positive emotional experiences. Each of these specific measures is discussed in more detail below in Section 2.3.5 and in Chapters 5 and 6.

2.3.4. Getting the Most out of Diary Techniques

Despite being potentially very useful methods for recording self-reports of emotional experiences, diaries can also pose a number of problems to the inexperienced researcher. One of the key disadvantages of the diary approach relates to the likelihood of attrition or dropout. Diary studies suffer significant problems with dropout (Breakwell & Wood, 2000). Many participants who agree to take part in the study in the first place do not continue to provide information throughout the designated period. Recruiting people who are willing to join the study in the first place can be difficult – given that completing a diary over a period of time may be perceived as an onerous task – but this problem is compounded by the fact that many people who feel like taking part at the recruitment phase may later change their minds

once they realise what it entails, or may simply lose interest. To address this issue in my own data collection, a number of preventative measures were adopted, which I would argue helped me to obtain a very respectable response rate for both diary studies.

Whilst designing the study, I realised that this kind of issue might be especially problematic for the initial qualitative diary study where participants were required to provide detailed descriptions of their experiences, undoubtedly a time-consuming endeavour. Given that the sample for this phase was not excessively large, arrangements were made with the target organisation to arrange individual meetings with each of the participants who were to be invited to take part. I conducted a brief interview with each participant, where I explained the purpose of the research and provided general instructions about how and when to complete the diaries. This enabled me to build a rapport with each participant, to make them realise how important it was that they completed the diary honestly and accurately, and also to reassure them that the process would be completely anonymous. In this way, although interviews were not part of my design, I tried to utilise some of their strengths to my advantage (see Section 2.2.1 above).

Due to the fact that the sample for the quantitative diary study was far larger, it was not possible to meet with each of these participants in person. Therefore, instead of a personal demonstration of how to complete these diaries, the participants were supplied with 'example' completed diary sheets. Furthermore, I made an attempt to maximise my response rate by chasing participants up over the phone. The organisation provided me with the participants' telephone numbers (with their consent) so that they could be contacted after a week to see how they were progressing with the diary. This was to enable me to answer any queries about the diaries and about the research in general, as well as provide a reminder to those who had forgotten to begin completing the diary.

As a final measure to maximise the response rate and reduce attrition, an incentive scheme for participants was introduced. For the *qualitative* diary study, I offered a cash prize raffle with 4 prizes of £75 for those respondents who completed the study. For the *quantitative* diary study, given that I was aiming for a far larger sample size, I decided that a more motivating incentive would be a guaranteed cash prize of £10 for all respondents who completed the study. Besides cash prizes, other diary studies have sometimes found it useful to offer non-monetary incentives such as cinema tickets (e.g. Fisher, 2002; see Breakwell & Wood, 2000).

A second important disadvantage of the diary approach relates to the issue of control. Unlike with other data collection methods where there is a greater degree of

face-to-face interaction between researcher and participant, with a diary study the researcher does not have full control over *what* is being recorded and *when* it is being recorded. Even assuming that the participant has the best intentions to comply with the researcher, it is not always easy to remember to make the entries at the right time about the right things (Breakwell & Wood 2000). Unfortunately, to this day this remains an inescapable limitation of paper-and-pencil diaries (electronic diaries may have an advantage in this respect – see Section 2.2.5 above). Besides providing the participants with detailed instructions, stressing the importance of accurate and honest entries, and reminding the participants of these points during follow-up telephone calls, there is not much else that the researcher can do about this issue, and it remains a potential shortcoming of diary studies such as my own.

Diaries are becoming an increasingly common methodology in social science research (Bolger et al., 2003). However, diary studies of affect at work are only a very recent phenomenon (see e.g. Fisher, 2002; Fuller et al. 2003; Grandey et al. 2002; Harris, Daniels & Briner, 2003), and their utility for this specific topic of study has so far not received much evaluation. As I outlined in Chapter 1, the aims of this thesis are primarily theoretical; however, given the relative novelty of diaries for studying emotions at work, I believe it would be useful to afford some attention to the issue of their utility in this particular research context. In this subsection, I have described some of the precautions that were taken during the data collection for this thesis to help maximise the potential of diaries, based on the recommendations of other researchers. At the end of this thesis, I also append a brief evaluation of this methodology, based on a retrospective evaluation of the data collection process, including both the qualitative and the quantitative diary studies (see Appendix E). Next in this chapter, I will provide an outline of my choice of scales for measuring positive emotional experiences in this thesis.

2.3.5. Specific Measures for Positive Emotional Experiences

An important decision in choosing the methodology for this thesis regarded the selection of a specific measure of positive emotional experience. This choice implicates a number of issues: Should I adopt a scale with one item or with multiple items? Secondly – and given that as described above I will be allowing participants to define themselves the constructs that refer to the proximal antecedents and outcomes of emotional experiences – should I adopt a previously validated scale or should I simply allow participants to provide their own emotion words to describe their feelings? Lastly, should I adopt a context-specific scale from the (very limited)

literature on positive emotions at work, or would I need to borrow a more general one from the psychological literature?

Some of the aims of this thesis, as outlined in Chapter 1, help to answer some of these questions. For instance, I am interested in exploring the structure of positive emotional experiences, anticipating that there might be distinct types of experience rather than one general overarching positive emotion factor. To do this, therefore, it would be necessary to use a multiple-item scale, to examine (a) the factor structure among these items; and (b) whether some positive emotion word items are more likely than others to be correlated with particular antecedents and outcomes. As a result, right from the beginning I discarded the option of a single-term measure of positive emotion (to find out more about such measures, see Lucas et al., 2003).

Having decided to adopt a multiple-item scale, the next decision concerned whether to design my own scale, using items elicited by the participants themselves, or to adopt a previously validated scale from the literature. This issue needed a lot of considered thought. On the one hand I wanted the data collection to be a relatively bottom-up process, bearing in mind that the kind of positive emotions that care workers experience might differ from those experienced by workers in other occupations; on the other hand, I also acknowledged the possibility that the workers in my sample might not be particularly likely to apply a wide lexicon of terms to describe their experiences unless prompted. I made this particular observation following some very preliminary pilot interviews, prior even to the qualitative diary study. I finally decided on a compromise option: I decided to adopt a checklist of positive emotion terms from an established scale, but also decided to use the qualitative diaries as an opportunity for participants to add any extra emotion words if they felt that the ones provided did not adequately describe their subjective experience.

The next decision was to choose a scale of positive emotions from the literature. There are a number of available scales within the general psychological literature (see Lucas et al., 2003). However, I was keen to find a scale that would contain items specific to work situations; many items from the general scales seem intuitively to describe relatively less likely experiences for work settings e.g. love, longing, lust, relief, enthrallment, etc. As I described in Chapter 1, positive emotions in work settings have traditionally been relatively neglected, often in favour of their negative counterparts. Nonetheless, some measures of work-related affective states do include both negative and positive terms: for example, the Job-related Affective Well-being Scale (JAWS) (Van Katwyk, Fox, Spector, & Kelloway, 2000) and the Stress Arousal Checklist (SACL) (Mackay, Cox, Lazzerini, & Burrows, 1978). After a reviewing a

few such scales, I eventually decided to adopt the positive items of Fisher's (2000) Job Emotions Scale. This scale contains eight positive emotion items and eight negative emotion items; these were derived from a lexicon of 135 terms, which were in turn distilled by Shaver, Schwartz, Kirson and O'Connor (1987) from an even larger lexicon. Fisher (2000) derived the items in her scale by conducting a pilot study on 174 part-time workers; these were asked to rate how frequently they had experienced each of the 135 feelings while working on their present or last job.

This particular scale was favoured over others for a couple of reasons. Firstly, it only contains eight different items to describe positive emotional states (e.g. Van Katwyk et al.'s JAWS contains 15 positive items; Mackay et al.'s SACL contains at least 12 with positive connotations). Although I wanted enough of a variety of items to cover a reasonable range of positive emotional experiences, I also wanted to avoid subjecting participants to an excessively long list of adjectives every time they completed an entry. Secondly, the items Fisher's (2000) Job Emotions Scale are very clearly describing emotional reactions to events; some other scales contain items that are arguably more descriptive of mood or general levels of arousal (e.g. lively, at rest, still, alert, etc.). Finally, I favoured Fisher's (2000) Job Emotions Scale because it has previously been used by some of the few researchers (see Fisher, 2002; Grandey et al. 2002) who have previously tested Weiss and Cropanzano's (1996) Affective Events Theory, which as I have outlined before, is one of my aims in this thesis. It would therefore seem to make intuitive sense to adopt this scale if I want to be able to make direct comparisons between my own findings and those of these other researchers.

I list the positive items of Fisher's (2000) Job Emotions Scale in the Method section of Chapter 4. As described above, I was also open to the possibility of including further positive emotion items if these were elicited by the participants themselves in the qualitative diary study. In Chapter 5 I outline the final list of positive emotion items that were included in the quantitative diary phase.

In this subsection I have described and justified my choice of scale for measuring positive emotions. The correlates of these subjective feelings (in other words, the events that gave rise to them, and the cognitive and behavioural changes that were associated with them) were specified by the participants themselves in the qualitative diaries (see Chapter 4), and operationalised as measures in the quantitative diaries, as described in Chapters 5 and 6. The operationalisation of all other variables (dispositional factors, attitudes, etc.) is also described in the Method sections of Chapters 5 and 6.

2.3.6. Data Analyses

Given the large number of variables involved in this research – in the way of positive emotions, their antecedents and their outcomes – a number of separate analyses were conducted on the data obtained for this thesis. In Chapter 4 I present a series of content analyses of the participants' descriptions of the proximal antecedents and outcomes of positive emotional experiences at work, obtained in the qualitative diary study. Having carried out the quantitative diary study, in Chapter 5 I present the analysis of the *antecedents* of positive feeling states, in Chapter 6 I analyse the *outcomes* of these feeling states and finally, in Chapter 7 I employ analyses that deal simultaneously with some of the antecedents *and* some of the outcomes of positive emotional experiences.

Many of the statistical analyses in this thesis differ from the basic regression analyses that characterise much of the traditional literature on affect at work (see Van Veldhoven, de Jonge, Broersen, Kompier, & Meijman, 2002). For instance, as a result of using diary data, many of the analyses involve dealing simultaneously with data from two separate levels (looking at variation *between* participants, but also *within* participants on different diary entries), such that more complex multilevel analysis techniques were required (see e.g. Bryk & Raudenbush, 1992; Hox, 1994; Snijders & Bosker, 1999). Also, one of my research aims is to test some of the propositions of Weiss and Cropanzano's (1996) Affective Events Theory, which involves dealing simultaneously with the antecedents and outcomes of positive emotional experiences (such that a positive emotion is at the same time both a dependent *and* an independent variable). To do this, slightly more complex structural modelling techniques are appropriate e.g. path analysis technique (see e.g. Joreskog & Sorbom, 2000), which assumes that all variables may be simultaneously predictors *and* outcomes.

Given that a number of different analysis techniques were adopted in this research – depending in each case on the nature of the data being considered and on the nature of the propositions being tested – rather than describe the various data analysis techniques here in this chapter, I proceed to do so in the chapter in which the results of each particular analysis are presented.

2.4. Summary

I hope have succeeded in this chapter in convincing the reader that, at present, for a study of positive emotional experiences at work, *self-reports* of the subjective feelings, of the appraised causal events of these feelings, and of associated changes in

cognitions and behaviours, represent the only logical and meaningful method of inquiry. Although more objective assessments would, in principle, constitute desirable complements to self-report measures, I have argued that at present these do not appear to be particularly viable options for measuring spontaneous positive emotional experiences in every day work settings. I have also argued that real-time assessments of emotions are far more desirable than retrospective reports, particularly in the context of the aims of this thesis. Furthermore, paper-and-pencil diaries would seem to constitute the best method for obtaining the kind of real-time self-report data I am interested in.

I have outlined here the research design that was adopted for this thesis: an exploratory qualitative diary study was followed by another larger quantitative diary study, at the end of which a questionnaire survey was administered. I have also described my choice of scale for measuring people's positive emotional experiences at work, as well as describing a few of the precautions which were adopted to deal with the risks associated with diary studies. However, the specific details of the procedures that were followed for each of the two diary studies, and the scales used to measure all other variables I will instead describe in later chapters. In Chapter 4, I describe and present the findings of the qualitative diary study. In Chapter 5, I describe and present the part of the quantitative diary study which involved positive emotional experiences and their *antecedents*; in Chapter 6, I deal with the part which involved the *outcomes* of these experiences. In Chapter 7, I try to deal with some of these antecedents and outcomes simultaneously. As I described above, although not a central aim of this thesis, I have also decided to report a summary evaluation of the diary methodology that was adopted for this research (see Appendix E).

Before embarking on an account of the empirical work that was conducted for this thesis, I now dedicate the next chapter to providing a brief overview of the occupational population that was sampled for this research.

3. The Context of the Study:

Home Care for Older People in the UK

Although of likely applied value to many other occupational groups, this thesis is based on research which was conducted on home care workers for older people, from a public sector organisation in the UK. In this brief chapter, I will provide a short background of the nature and recent history of this occupation, as well as some of the reasons why I chose them as my target population. I conclude by presenting a brief overview of the organisation from which the data for this thesis was collected.

3.1. What is Home Care for Older People?

Home care is a service for older people who are frail and wish to remain in their home rather than be placed in residential care. Home care in the UK has traditionally been a social care service, distinct from health care. To this day, the role of home care workers has been to provide their clients with assistance with personal care needs, such as getting dressed, having a bath or shower, getting to the toilet, or making a meal; they also provide assistance with domestic tasks, such as house cleaning. In some cases, they provide care and support to clients who are terminally ill. Within the public sector, home care is a service provided by local authority social service departments. Health care assistance, on the other hand, has typically been the responsibility of district nurses working for the National Health Service (NHS). The division between social and health care was intensified by the implementation of the 1990 NHS and Community Care Act, which strengthened the divide between health (free at the point of delivery) and social care services (largely means-tested).

3.1.1. Recent Developments in Home Care Work

In recent years, however, there have been a number of developments in welfare governance that have transformed the landscape of both social and health care services in the UK (see e.g. Calnan & Gabe, 2001; Rummery & Coleman, 2003). For instance, the 1999 Health Act attempted to integrate social and health providers; the concept of ‘partnership’ appears to be central to the British Labour government’s particular health and social care agenda (Calnan & Gabe, 2001; Secretary of State for Health, 2000). The NHS plan (Secretary of State for Health, 2000) signalled, among other things, the proposed development of the integration of primary health and social

care services within one organisation called a Care Trust. It stated that “Care Trusts will be able to commission and deliver primary and community health care as well as social care for older people and other client groups. Social Services would be delivered under delegated authority from local councils. Care trusts will usually be established where there is joint agreement at local level that this model offers the best way to deliver better care services” (para 7.10). Evidence from a study by Rummery & Coleman (2003) suggests that some progress towards partnership working has been achieved, although there is some way to go before the integration of primary health and social care in the UK will be feasible.

An implication of these developments on home care workers is that, in a move to facilitate the integration of social and health care services, their job description has seen a shift in recent years towards taking over the type of health care work traditionally carried out by district nurses. In many cases this involves more skilled tasks, and a need for further training. Whereas the extent of a home care worker’s responsibility and expertise in health issues might once have been to prompt the clients to take their medication, nowadays home care workers are increasingly expected to carry out nursing tasks such as administering eye drops and applying catheter or stoma bags.

Another important development within social care work has been the introduction of a training qualification, or national vocational qualification (NVQ), which each home care worker must study for and obtain either before or during their employment (see Fearfull, 1997). This has resulted in home carers needing to be proficient at dealing with paperwork. Nowadays, for instance, home care workers must keep detailed records or ‘care plans’ which are specific and tailor-made to each individual client’s needs. They must be able to provide written as well as verbal reports relevant to the care of their clients, to participate in the monitoring of quality standards and in performance reviews and to accept responsibility for their own development and training needs.

To summarise, the recent developments in social care work have substantially affected the jobs of home care workers in the UK. I will now go on to explain why I believe that a study of positive emotions at work is particularly important within this occupation.

3.2. Why study the Positive Emotions of Home Care Workers?

3.2.1. The Growing Importance of Home Care Work

The 2001 UK census revealed that for the first time in modern history there are more people over 60 than there are children. The proportion of the population aged 60 and over has increased to 21 per cent from 16 per cent on census day 1951. The ageing of the UK population is particularly evident when the number of people aged 85 and over is considered. On census day 1951, there were 0.2 million people aged 85 and over (0.4 per cent of the total population) in the UK. By census day 2001, this had grown to just over 1.1 million (1.9 per cent of the total population). The rate of growth over this period in the UK is comparable with a number of European countries. These demographic trends in the UK are thought to reflect longer life expectancies due to improvements in living standards and health care and also the fact that there have not been any events with a corresponding effect on life expectancy like that of the first and second world wars.

As a result, it is evident that home care for older people represents an occupation of increasing importance in our society. So far, however, the demand for home care for older people has exceeded the supply of qualified, competent workers who can deliver the service, resulting in workforce shortages (Department of Health, 2001). Rapid turnover in home care workers has also contributed to inconsistent and often inadequate staffing levels.

3.2.2. Work Stress in Home Care Work

In line with much of the research on work affect, most studies on home care workers have tended to focus on the negative or stressful emotions experienced in this occupation (see e.g. Bartoldus, Gillery, Sturges, 1989; Brulin, Winkvist, & Langendoen, 2000; Denton, Zeytinoglu, Webb, & Lian, 2002). To a large extent, this focus is understandable. After all, home care workers for older people have a highly demanding job: they must manage care for their clients in an environment where they often have to navigate family dynamics, and in recent times they have had to keep up with a number of changes in their profession, as described above. Also, until recent health and safety legislation brought about a number of regulations which made compulsory, for example, the use of hoists to lift clients, home care work was a profession with a high rate of injuries. On top of these demands, one might argue that care for older people has an added undesirable feature which differentiates it from

some other types of care work. Due to the particular nature of their clients, care workers for older people are unlikely to observe tangible improvements as a consequence of their actions; older people in need of social care rarely ‘get better’, and much of the care provided is palliative. Death is an inevitable part of day-to-day work.

Despite the demanding nature of the work, home care for older people remains a very low-wage occupation, with many workers paid at around minimum wage.

3.2.3. Positive Emotions in Home Care Work

Yet for all these hardships care work is also perceived by many as being an incredibly rewarding occupation. Although the condition of elderly clients who require home care rarely improves significantly, one could argue that symptom control and palliative care might nonetheless be rewarding, especially where relatives are grateful to know that a loved one passed away without suffering. In this sense, and given that care work is socially valuable (by making a difference to other people’s lives), the rewards of this job might be seen as largely intrinsic rather than extrinsic. It is also a job with a high amount of social contact and many interpersonal interactions, which the psychological literature on emotion suggests can be a very important source of positive emotions (Clark & Watson, 1988).

However, to this day almost no researchers have explicitly examined the incidence of positive emotions in home care workers for older people. In a rare study, Olson and Ingvad (2001) analysed the carer-client relationship in some depth and argued that this kind of care work has a high emotional content (with both positive and negative emotions), particularly for the care workers themselves. Beyond this kind of evidence, however, our knowledge is limited. What kinds of positive emotions do these workers experience on the job? What are the specific sources of these positive emotions? Do these positive emotional experiences have any beneficial consequences – both for the care workers themselves and for their employing organisation – which outlast the pleasant emotional experience itself, as suggested by the recent literature on positive emotions (Fredrickson, 1998)?

It seems that, given the growing importance of this occupation in our society, research on these kinds of questions is timely. A study of positive emotions in care workers for older people, besides addressing the various theoretical issues I outlined in Chapter 1, might have useful applications for promoting the positive and rewarding aspects of this occupation and help to make it more marketable, thereby potentially addressing the workforce shortage issue I mentioned above.

It is on the basis of these considerations that I decided to carry out the research on positive emotions for this thesis on this particular occupational population. Although, as I stated in Chapter 1, this thesis is primarily concerned with positive emotions at work rather than positive emotions in care workers *per se*, I will nonetheless dedicate some attention to any practical implications that the research presented here might have for care work organisations (see e.g. Chapter 8). The main focus in this thesis is on advancing our understanding of the incidence and importance of positive emotions as psychological phenomena in the workplace, but I will also discuss what the findings of this research can tell us, in a more general sense, about the positive aspects of care work with older people.

To conclude this brief chapter, I will now provide an overview of the particular care work providing organisation which was sampled for this research.

3.3. The Target Organisation

The research that was conducted for this thesis was all carried out within one single organisation. The organisation is a local authority social service department in an English county. It provides a number of different social services, one of which is home care for older people. As of November 2003 (which is the approximate time that the research was carried out) the following details were true of this organisation, and may help to provide an overview of the sampled population:

- They provided home care to 2632 older clients (also referred to as service users), 70% of which were female, 88% of which were over 65 years old, and 38% of which were over 85;
- They employed 765 ‘shop-floor’ level Community Care Assistants whose job it is to carry out the personal care tasks I outlined above;
- They also employed 77 Senior Community Care Assistants – who carry out many of the same tasks but also have the responsibility of co-ordinating the roles of the other care assistants, acting as line managers (e.g. organising shifts, etc.);
- They employed a further 25 Rapid Response workers, whose job is to provide immediate and intensive support for older people in their own home following a crisis (for example, if they have fallen and need a few days to recover, or if their main carer is ill). These workers in particular often offer basic nursing care;

- Of this total of 867 staff, 21% were over 55 years old, and only 3% were male.
- Turnover statistics reveal a steady decline in recruitment over recent years, attributed to the fragility of the employment market; they also reveal a high rate of turnover (with 316 leavers for 288 new starters).

The research that was conducted with this organisation was carried out on a voluntary basis. The various findings of this research, which I will now present and discuss in the remaining chapters of this thesis, were collated and included in a feedback report to the organisation.

4. ‘Mapping the Territory’: Identifying Care Workers’ Positive Emotions and their Causes and Consequences

In this chapter I present the qualitative diary study which was conducted several months before the main quantitative part of the study. This qualitative study allowed the care workers themselves to identify the types of work events (causes) which brought about positive emotions, and also any short and longer term effects on behaviour and cognition (consequences) of these positive emotions. It also allowed them to describe their positive feelings in the own words, whenever these were not adequately covered by the checklist that was provided. This qualitative phase essentially sets the scene for the main quantitative part of the study, as it provides many of the constructs and terms which were incorporated into the diaries and questionnaires that were used in the second phase.

I will begin this chapter with an introduction explaining why I believe a qualitative approach was important in the early stages of this research; then I will describe the sample and outline the procedure that was followed. Finally, I present and discuss the findings.

I should point out here that whilst the qualitative data obtained in a study such as this could arguably be considered sufficient to constitute an independent study in its own right², in the context of this thesis the main aim of this study was to elicit constructs and provide a ‘language’ that could be used in the main quantitative phase, where the relationships between these constructs were examined on a larger sample.

4.1. Introduction

In recent years there has been an upsurge in enthusiasm for qualitative research in organisational psychology (see e.g. Cassell & Symon, 2004). I believe that this type of approach is valuable for any in-depth study of positive emotional experiences, partly because qualitative methods are very effective at capturing the richness associated with emotional experiences (Lazarus, 1999) and also because, given the gaps in our knowledge in this area (outlined in Chapter 1), we are currently lacking the language to describe the specific constructs which are linked with these emotional experiences. I will now outline what I believe the benefits of a qualitative approach are, specifically in terms of the main sets of constructs of interest in this study,

² Some psychological approaches to emotional experience adopt a purely qualitative level of analysis – see e.g. Lazarus (1999).

namely the positive emotions that were experienced, and the causes and the consequences of these positive emotions. I will deal with the measurement of each of these in turn.

4.1.1. Positive Emotions experienced at Work

As I explained in Chapter 2, with regards to the language terms for describing positive emotional experiences, my intentions in this thesis were to combine an existing framework of positive emotions terms (from the Job Emotions Scale; Fisher, 2000); with positive emotion terms that were reported by the workers themselves, so as to provide a lexicon of terms to comprehensively cover the range of pleasant phenomenological experiences which care workers are likely to experience in the workplace.

In this study, therefore, the aim was to allow the care workers to come forward with their own emotion terms if they felt that the list provided was not comprehensive enough. A checklist with positive emotion terms derived from the literature was supplied, but the care workers in this pilot study were encouraged to use their own words too.

4.1.2. Events as Causes of Positive Emotions Experienced at Work

As described in Chapter 1, traditional attempts to examine the situational antecedents of positive affective experiences at work have tended to focus on the role of stable features of the work environment (such as autonomy, opportunity for skill use, etc.), rather than on actual emotion-inducing events. According to more recent theories of affect at work, however, events constitute more appropriate units of analysis, particularly if it is emotions we are interested in studying (Weiss & Cropanzano, 1996). It may be that the nature of positive emotion-inducing work events overlaps to some extent with the stable work environment features listed in some traditional frameworks of work factors (e.g. Hackman & Oldham, 1980; Warr, 1987). Indeed Weiss and Cropanzano's (1996) Affective Events Theory suggests that emotion-inducing events are likely to be *predicted* by work environment features; the latter act as a stable backdrop of the work environment which predisposes the occurrence of the former. However, as I suggested in Chapter 1, some stable features are likely to be more predictive of events than others; for instance, favourable pay conditions may be a desirable work feature but they would not seem, intuitively, to be a very likely cause

of positive emotional events at work on a day-to-day basis. So what *are* the most common types of positive emotional events at work?

There are some (rare) attempts in the literature to identify the types of events which make people feel good on a day to day basis (e.g. Clark & Watson, 1988; Duncan & Grazzani-Gavazzi, 2004)) but these have usually been carried out in a global rather than work-specific context. There are so few recorded attempts to measure positive emotion-inducing events at work that it seems very likely that a bottom-up, exploratory approach is needed at this point, across a range of occupations. Specifically in my sample, what types of workplace events and situations make home care workers feel good at work? It seems likely that open-ended descriptions from the care workers themselves (as might be recorded in a qualitative diary) would be an excellent source of data that could be used to answer this question.

4.1.3. The Short- and Longer-Term Consequences of Positive Emotions Experienced at Work

In Chapter 1 I argued that positive emotions experienced at work may give rise to certain cognitions and behaviours which may be seen as favourable to the individual and to the organisation. Some of these types of constructs have already been identified in the literature e.g. immediate behavioural outcomes such as helping behaviours and performance (Fisher, 2002; Miner, 2002) and longer term effects on work attitudes (Fisher, 2002). The literature also suggests associations with a number of other outcomes; for instance, Fredrickson (1998) has suggested that positive emotions may spark changes in cognitive activity in the form of broadened scopes of attention and flexibility of thought. However, empirical evidence to test theoretical contributions such as that of Fredrickson is only very slowly emerging.

Whilst the existing literature already contains some well-established constructs as hypothesised outcomes of positive emotions – which I believe provides a good background for this inquiry – in Chapter 2 I argued that what is also needed in this sense is a body of exploratory empirical work which draws out cognitive and behavioural outcomes of positive emotions *as perceived by workers themselves*. As I argued in Chapter 2, there is considerable value in collecting this kind of data qualitatively to begin with. Rather than deciding *a priori* what the each of the specific changes in cognition and behaviour that accompany positive emotions might be, and asking workers to state whether these effects had applied to them during and after a particular emotional experience, to begin with it may be best to ask the workers to describe themselves how they perceive their cognition and behaviour to be affected, if

at all. I wanted to avoid imposing from the beginning my own preconceptions of the possible effects that positive emotional experiences might have on the workers' cognitions and behaviours and let them describe these in their words. As I pointed out in Chapter 2, such an approach would strengthen any claims of actual relationships between associated variables, given that the constructs were determined in the first place by the respondents themselves, and associations cannot be said to be a result of the biases commonly attributed to self-report measures of affective states (see Hurrell et al., 1998).

A qualitative diary study seems to represent an excellent opportunity to obtain this kind of data. If it is possible to capture emotional experiences as they happen with sophisticated methodologies such as diaries, surely it is possible to also capture accompanying changes in cognition and behaviour, both in the short-term, and also for the rest of the day.

Having reviewed the reasons for adopting a qualitative diary approach for measuring positive emotions and their correlates, I will now describe the procedure that was followed to collect this data.

4.2. Method

4.2.1. Participants and Procedure

The qualitative diary study was carried out in May 2003. 23 participants were invited to take part; these were all home care workers ('shop-floor' level community care assistants) from the same organisation that was sampled in the main phase of the study. The 23 participants were interviewed and invited to take part in a 2-week qualitative diary study which required them to take a diary to work with them everyday and answer a number of questions in relation to each positive emotional experience at work during those 2 weeks. Each participant was also given a postage pre-paid envelope to return the completed diary to the researcher, as well as being entered into a cash prize raffle for completing the study.

Of the 23 participants who were invited to take part in the diary study, all agreed to take part but only 9 actually completed and returned the diaries. Of these 9, only 6 provided demographic information when prompted to: all of these were female, with an average age of 47.8 (SD = 5.2) and an average tenure of 8.6 years (SD = 6.3).

4.2.2. Diary Protocol

Participants were instructed to take the diaries to work with them every day. In response to a positive emotional experience, and as soon as possible thereafter, participants were asked to answer some questions about the nature of this experience.

- 1) First, they were provided with a checklist of positive emotions, including those from Fisher's (2000) Job Emotions Scale, and they were asked to state which were those that best described how they had felt. The items in this scale are *proud, a liking for someone/something, enjoying something, enthusiastic, pleased, content, optimistic* and *happy*. They were also asked to provide their own positive emotion terms if those which were provided did not cover the particular way that they felt.
- 2) Secondly, they were asked to describe the event or chain of events which had given rise to that positive emotion. The emotion literature suggests that emotions sometimes arise not in response to a single event, but rather in response to a chain of sub-events (Frijda, 1993), all organised around a single underlying theme (Lazarus, 1991).
- 3) Thirdly, they were asked to report whether the emotional experience had affected their thoughts or behaviours at that time, and if so, to give details.
- 4) Lastly, they were asked to answer a final question, at the end of day, reporting whether and how the positive emotional experience had affected their mood, thoughts and behaviours for the rest of the day.

Each participant's diary contained 10 sheets. Respondents completed an average of 6.2 diary sheets ($SD = 2.3$) over the two-week period. The total number of completed diary sheets was 56.

4.2.3. Coding Protocol

Given the wide variety of unique descriptions provided by the respondents, it was necessary to code the response data for each question, since the main aim of this pilot study was to obtain general categories of common or similar response patterns, to provide discrete constructs for the main phase of the study.

In order to do so, content analyses were carried out. Content analysis involves the researcher producing a list of codes which represent themes identified in the data; these codes are defined and refined during the data coding process, in response to

emerging repeated themes within the data (Weber, 1990). Most of the positive emotion terms were pre-supplied in the diaries, and therefore did not require any coding. Each of the other sets of response data (events, immediate outcomes and longer-term outcomes) were coded according to the following procedure:

The participants' descriptions in the response data for each question were classified according to emerging themes from within the data. These common theme categories emerged as the analysis advanced. In deciding what constituted a discrete theme category, I aimed to find a balance between being parsimonious (as I wanted to keep the analyses simple and concise) whilst retaining, as far as possible, the richness associated with each description. This issue would become particularly important when designing the quantitative diary for the main phase of the study, as will become clear later on. Once it became apparent that there were no more emergent themes, each event description was coded into one of the established theme categories. Theme categories were only maintained if they contained two or more examples; if a theme category was only represented by one example, it was placed in a miscellaneous category labelled 'others', and eventually excluded from the design of the main phase of the study.

The final protocols with observed frequencies and examples for each category are shown below in section 4.3. I should point out at this stage that content analysis is a subjective process, and prone to the researcher's own preconceptions of what might be considered a discrete theme, a factor which I openly acknowledge. To improve the objectivity of the coding process, once I had coded the data, these were then coded by a secondary assistant. Percentage agreement was determined for each level of analysis. Results are shown in below in the Results & Discussion section.

4.3. Results & Discussion

4.3.1. Reliability

Percentage agreement was determined for each level of analysis to assess the reliability of the coding protocol, following the recommendations of Kolbe and Burnett (1991) and Neuendorf (2002). Results are shown in Table 4.1. Looking at Table 4.1, a percentage of agreement of about 71% exists between the author and the assistant for the protocol categories, indicating an acceptable inter-rater reliability of the coding protocol developed for this sample. To ensure reliability further, disagreements between coders were resolved through discussion.

Table 4.1. Reliability of coding protocol

	Percentage agreement
Events	74%
Immediate outcomes	68%
Longer-term outcomes	70%
Total agreement	71%

4.3.2. Additional Positive Emotion Items

The frequency with which additional positive emotion terms were reported is presented in Table 4.2. We can see from the table that only two additional positive emotion terms were elicited by participants, feeling *good* and feeling *rewarded*, and each of these was only reported once.

It seems therefore, that overall the positive emotion terms what were provided *a priori* were enough to encapsulate the nature of the positive emotional states experienced by the care workers, since only two alternative terms were offered. Feeling *good* I interpreted as being too general and vague a positive emotion term to be of much use for differentiating between distinct types of positive emotional experiences (one of the aims of this thesis), so it was discarded. Feeling *rewarded*, however, I found to be an interesting construct, particularly in view of the nature of care work, so I decided to incorporate it into the lexicon of positive emotion terms for the main phase of data collection.

Table 4.2. Frequency of additional positive emotions

Positive Emotion	Frequency
Good	1
Rewarded	1

4.3.3. Events as Causes of Positive Emotions

From the descriptions of the events that were perceived by the participants to have caused the positive emotional experiences, 14 different discrete themes or types of event were extracted. The frequency with which each event type was reported and an example for each category are presented in Table 4.3. Examining the event categories

in Table 4.3 we can see that many of these were intrinsic to the relationship between the care worker and her or his clients, although some were more related to the tasks carried out by the care worker. Most of the types of events that were reported as causes of positive emotions were related to social interactions with clients, consistent with previous research in global (not work-specific) settings (see Clark & Watson; Shaver et al. 1987). By far the most commonly reported event type was *client appreciation* (i.e. being thanked by a client) which was reported by every participant at some point, and on 21 occasions in total.

In most cases, the descriptions contained more than one type of event, suggesting that the positive emotions, rather than discrete reactions to a single event, were often part of an ongoing emotional episode or transaction between the person and their environment, consistent with some of the most contemporary theories of emotion, as outlined in Chapter 1 (see e.g. Frijda, 1993).

Given that the key aim of developing these categories was to provide items for the next quantitative phase of data collection, I attempted to make the categories as specific as possible, so as to retain sufficient meaning for the care workers to be able to readily interpret them when faced with them in the quantitative diary study that followed this one. Therefore, some categories may seem to be similar or to overlap. For instance, the event of *completing a task at work* may also involve *helping a client*. It may also involve *applying skills*. In cases such as these the aim was to pick out what it was about the event that had meaning to the carer; in a sense, I was tapping into the underlying content of appraisal. According to this level of analysis, therefore, one single event could have different meanings; I attempted to extract these from the participants' descriptions. This is based on the assumption that it is not directly the events but rather the appraisal of events that are associated with emotions (e.g. Lazarus, 1991).

Keeping the categories specific, as discrete units, of course does not preclude the possibility of a higher-order classification of these categories. As mentioned above, it can be observed from Table 4.3 that many events seem to be qualitatively intrinsic to the relationship between the care worker and her or his clients, whereas others seem to be more related to the tasks carried out by the care worker. The relationship between these event categories is explored in the next chapter of this thesis, following the quantitative diary study.

Table 4.3. Frequencies of event types reported

Event Category	Example event description	Total no. of times that event type was reported	Percentage of participants who reported event type
Client appreciation	"One of my clients could not thank me enough for all I had done for him"	21	100%
Completing a task at work	"I was able to get the jobs done"	9	33%
Chatting / joking with client	"A client told me about a particularly funny experience she had during the day"	8	78%
A client being pleased to see the care worker	"I was told I had been missed for the last few days"	6	55%
Client's family appreciation	"A client's relative phoned the office to say that we are providing a good service to her husband"	6	44%
Making progress with a client	"One of my clients let me bathe him.. he does not usually like this, I managed to talk him round"	6	44%
Helping a client	"I helped a client to stay in their own home... because they can't look after themselves "	6	33%
Cheering up a client	"I cheered up a home today which is usually quite miserable"	5	33%
Meeting a new client	"A first meeting with a new service user"	4	44%
Making a client feel special or 'young again'	"I washed a 97 year-old's hair and put it in rollers, I made it look really nice"	4	33%
Applying skills	"It was the advice I gained from my course that gave me the initiative in this situation"	2	22%
Meeting up with a colleague	"I met up with another care assistant on one of the visits"	2	11%
Seeing a client improve	"This client had just come back from hospital, and it was really good to see him well."	2	11%
Carrying out a nursing task	"I changed a service user's catheter bag"	2	11%
Other	"A service user got up early and had a shower all by herself"	4	44%

4.3.4. Immediate Outcomes of Positive Emotions

Participants were asked to report any immediate cognitive and behavioural outcomes of their positive emotional experiences. Following the content analysis of these reports, 7 discrete theme categories were extracted. The frequency with which each type of outcome was reported and an example for each category are presented in Table 4.4. Examining Table 4.4 we can see that, on some occasions, participants either reported that they had experienced no accompanying changes in cognition or behaviour, or they simply reported nothing (on 20 occasions). However, on the majority of occasions, one or more outcomes were reported. It is perhaps interesting to note that some of the short-term outcomes elicited by carers, in their own words, seem to correspond rather neatly to well-established psychological constructs. I will now review each of these outcomes and, based on the existing literature, suggest ways in which positive emotions might be related to them.

It is important to remember that, at this point, these findings only suggest that these outcomes are *perceived by the care workers* as being linked to positive emotional experiences. Later on in this thesis I will examine to what extent the likelihood of these outcomes might have been determined by the nature of the positive emotional experience, such that we might be able to infer that positive emotions actually played a role.

Table 4.4. Frequencies of immediate outcomes reported

Immediate Outcome Category	Example outcome description	Total no. of times that outcome type was reported	Percentage of participants who reported outcome type
Insights into one's work	"I realised that little things done from day to day are just as important as the big issues"	14	78%
Increased sense of purpose	"It made me think my job is worthwhile"	9	44%
Increased self-efficacy	"It made me feel more confident in my ability as a carer"	8	44%
Increased self-esteem	"It made me feel important"	6	44%
Increased motivation	"It gave me an incentive to work to a higher standard"	4	33%
Desire to help client	"It made me feel like hanging up the phone and going over to see that service user right then"	3	33%
No effect	"It didn't affect me in any other way, really"	20	100%

Insights

The most commonly observed theme was one which implied that positive emotional experiences gave the care workers insights into their work. For example, one person commented: "I realised that little things done from day to day are just as important as the big issues". Other example descriptions were "I realised that my attitude at work really makes a difference" and "I realised I could help people by giving them advice about their problems". Insights such as these were reported 14 times and by 78% of the participants.

The idea that positive emotional states might be linked to insightful patterns of thought has received a modest degree of attention in recent years. As I described in Chapter 1, a number of experimental studies have shown that positive emotions are linked to patterns of thought that are flexible (Isen & Daubman, 1984) and creative (Isen, Daubman, & Nowicki, 1987; see also Isen, 1987). This kind of effect is thought to be linked to increases in brain dopamine levels (Ashby, Isen, & Turken, 1999). Based on this evidence, Fredrickson (1998; 2000a) has argued that positive emotions

make individuals generative of, and receptive, to a wide range of ideas and actions. Perhaps, as Fredrickson's theory suggests, care workers who experience positive emotional experiences at work are more likely to think *outside the box* and have moments of clarity with regards to their job.

Sense of Meaning

The next most commonly observed theme in the data was one which seemed to map approximately onto a construct which has received increasing attention in recent years: the sense of meaning (Baumeister & Vohs, 2002; Wrzesniewski, Dutton, & Debebe, 2003). Examples of descriptions that fell under this category included "It made me think my job is worthwhile" and "It made me think how important my job is".

Finding or making a sense of meaning is said to involve making attributions (e.g. "I was put on this earth for this purpose") in an effort to understand an event or situation (Baumeister & Vohs, 2002). Some have argued that this process relies on the individual organising or structuring their thoughts and emotional experiences (Esterling, L'Abate, Murray, & Pennebaker, 1999; King & Pennebaker, 1996). This kind of analysis suggests that positive emotions might play a role in the formation of a sense of meaning. In a recent paper, Wrzesniewski, Dutton and Debebe (2003) have argued that, in particular, social interactions at work play a key role in finding meaning in work. Perhaps the positive emotions which care workers experience at work as a result, for example, from seeing the difference they make to their clients' lives, might help them to find meaning in their work.

Self-Efficacy

Another theme which was extracted from the participants' descriptions referred to increased confidence in their abilities, a construct which is arguably very reminiscent of the construct of self-efficacy (Bandura, 1977; 1997). The most typical example of this type of description was "It made me feel more confident in my ability as a carer".

Self-efficacy has been defined as a person's belief in their capabilities to produce desired effects by their own actions (Bandura, 1997). This construct has received a lot of attention in the last couple of decades (see Bandura, 1997, for a review). A number of researchers have highlighted the role that positive emotions play in relation to self-efficacy, based on evidence from experimental studies. Some early studies indicate that positive affect increases confidence in one's judgements and ability (Williams &

Keating, 1987); Baron (1990) found that artificially induced positive affective states boosted subjects' reports of self-efficacy in completing a set task. More recently, Pekrun, Goetz, Titz and Perry (2002) examined students' positive emotional experiences in academic settings, and argued that these were associated with self-efficacy and achievement because they facilitated flexible ways of thinking, problem solving and coping. In this sense, this outcome might be related to the *insights* outcome I have described above.

Self-Esteem

Another theme that was extracted from participants' diary description of the outcomes of positive emotional experiences seemed to refer to improvements in self-esteem. Examples of such descriptions included "It made me feel important" and "It made me feel useful".

Self-esteem is a topic which has received a vast amount of attention in the psychological literature (for a review of this literature, see e.g. Gecas & Burke, 1995; Mecca, Smelsner, & Vasconcellos, 1989). There is also some research on the role of self-esteem in work situations (see Brockner, 1988). Most of the literature seems to assume that self-esteem and emotions are closely interlinked, although there appears to be a certain amount of conceptual ambiguity, and not much of a consensus regarding a definition. For example, self-esteem is at times described as being a positive emotion in itself. Such a definition would not appear to be very useful here because, according to my working definition provided in Chapter 1, emotions are momentary and transient states; self-esteem, on the other hand, seems to refer to a more stable, longer-lasting psychological state.

In some cases, self-esteem has been defined as a state of self-evaluation (see Hewitt, 2002); the evaluative component of this kind of definition seems to imply that self-esteem is something akin to an *attitude* about oneself. Perhaps, in that sense at least, self-esteem might be comparable to the other work-related attitudes I have dealt with in this thesis, and one could argue that, like work attitudes such as job satisfaction and organisational commitment, self-esteem might be partly shaped by the cumulative experience of momentary positive (and negative) emotional experiences. Elaborating on this kind of interpretation, Hewitt (2002) has suggested that positive affective states (he refers specifically to moods) may play a role in fostering self-esteem because they are seen as encouraging the perception of the world in benign and non-threatening terms. They foster "the perception of a self at ease with its others" (Hewitt, 2002, p. 143). One could speculate that the relationship

between a care worker and her client may produce positive feelings in the care worker which helped to foster this kind of socially-influenced self-esteem.

Motivation and Helping Behaviours

Two qualitatively different types of motivations or behavioural intentions were extracted from the respondents' diary descriptions. One category seemed to refer to a general motivation or desire to try harder at work. The most typical example description from this category was "It gave me an incentive to work to a higher standard". The other category was more far specific and seemed to refer exclusively to a desire to help or to act in a caring way towards the client. Example descriptions from this category included "It made me feel like hanging up the phone and going over to see that service user right then" and "I tried to spoil the client a bit more".

Work motivation is a construct which has received a vast amount of attention in organisational research (Steers, Porter & Bigley, 2003; Vroom, 1995). Motivation has been defined as: the psychological process that gives behaviour purpose and direction (Kreitner, 1995); a predisposition to behave in a purposive manner to achieve specific, unmet needs (Buford, Bedeian, & Lindner, 1995); and an internal drive to satisfy an unsatisfied need (Higgins, 1994). Most of the research on work motivation has focused on the role of cold cognitive processes such as expectancies (Kanfer, 1992); only very recently have researchers begun to pay attention to proximal emotional processes that account for within-person fluctuation in motivation from moment to moment (see Fisher & Noble, 2004).

In the psychological literature, on the other hand, the concepts of motivation and emotion have always been closely interlinked, as reflected in the titles of text books, many university courses or modules, and even a journal: *Motivation and Emotion*. There are several clues in the literature as to how positive emotions might act as 'motivators'. For instance, many traditional theories of motivation highlight the role of incentives (Hull, 1943); successful performance on a task may produce a positive emotional reaction which reinforces that particular behaviour, through a process of operant conditioning. In other words, in some circumstances positive emotions may reinforce and motivate the type of behaviour which produced them in the first place. Along these lines, Fredrickson (2002) has argued that to the extent that helping others produces positive emotions, it may fuel motivation to help again in the future.

Contemporary theories of emotion also refer explicitly to motivational processes. They imply that emotions 'motivate' and prepare the individual for goal-related behaviour (the goal being to deal with the appraised event or object as appropriate),

for example by focusing attention on the most relevant environmental stimuli (Oatley & Johnson-Laird, 1987). Fredrickson (1998), however, has argued that positive emotions are unlike negative emotions in that they lead to broadened (rather than narrow and focused) scopes of attention, cognition and action, for example, by motivating exploratory or playful behaviour, often of a pro-social nature, with the eventual goal of building intellectual and social resources. Each of these strands of the psychological literature seem to support the idea that changes in motivation, as captured by the two categories I have described above, may result from positive emotional experiences. The second category, which referred to the specific desire to help the client, is also consistent with previous research on workplace affect which links positive emotions with helping behaviours³ (e.g. Fisher, 2002; Miner, 2002, Isen & Baron, 1991). It is worth pointing out that some of this research suggests that positive emotions will motivate pro-social behaviours (such as helping) but *only* if these help to preserve the positive emotional state (Isen & Baron, 1991). If the individual appraises that the helping behaviour will interfere with their own positive affective state, they may avoid it.

4.3.5. Longer-term Outcomes of Positive Emotions

Participants were asked to report, at the end of the day, any effects which the positive emotional experiences might have had on their mood, thoughts or behaviours for the rest of that day. Following the content analysis of these reports, 5 discrete theme categories were extracted. The frequency with which each of these types of outcome was reported and an example for each category are presented in Table 4.5. An examination of Table 4.5 reveals that, on some occasions the positive emotion either had no effect on the carer's mood, thoughts and behaviours for the rest of the day (on 7 occasions), or that any effect was lost by the time the carer had got home or had finished seeing their next client (on 2 occasions). However, on the vast majority of occasions some type of long-lasting effect of the positive emotional experience could be interpreted in their diary reports.

³ This category of helping behaviour might be seen as reminiscent of a construct often used in organisational research, Organisational Citizenship Behaviour (OCB) (see e.g. Organ, 1988), but I would argue that in this context the term helping behaviour is more appropriate, since it refers more specifically to the relationship between the carer and her client.

Table 4.5. Frequencies of longer-term outcomes reported

Longer-Term Outcome Category	Example outcome description	Total no. of times that outcome type was reported	Percentage of participants who reported outcome type
Long-lasting positive mood	"I felt good for the rest of the day"	35	100%
Thoughts about the event	"It made me think about the client all day"	13	44%
Behavioural markers of positive well-being	"I was still smiling when I got home"	3	22%
All effect of positive emotion lost	"The positive feeling was lost by the time I'd seen the next client"	2	22%
No effect	"I'm normally the same throughout the day"	7	55%

As I mentioned above, it is important to remember that these findings only suggest that these outcomes are *perceived by the care workers* as being linked to positive emotional experiences. Later on in this thesis I will examine to what extent the likelihood of these outcomes might have been determined by the nature of the positive emotional experience, such that we might be able to infer that positive emotions actually played a role.

Long-lasting Positive Mood

In the majority of diary entries, participants reported positive effects on mood lasting throughout the day (reported on 35 occasions and by every participant at least once). Typical descriptions were "I felt good for the rest of the day", "I felt less stressed" and "I had a lot more energy".

As I described in Chapter 1, emotions differ from moods in the sense that they are about a defining event or an object of interest, but emotions and moods are nonetheless related in the sense that emotions can give rise to moods. From his review of the relevant literature, Morris (1989) concluded that, among other things, moods may result from the offset of emotional reactions, as residues of the emotional response, or also from the recollection of the emotional event, such that they are affected by cognitive processes of recall and imagination in the absence of a current event. It seems likely that mood at work is likely to be determined by a number of factors, as I will discuss further later on in this thesis; in any case, the findings here

suggest that positive emotional experiences at work may be a fairly important contributor to the overall mood of care workers.

Thoughts about the Event

Another theme which was extracted from the participants' descriptions referred to having lingering thoughts about the positive event (or the client involved in the event). Examples of descriptions were "It made me think about the client all day" and "I felt good thinking that the service user is getting help and will get better".

This theme seems to be closely tied in with the outcome I have just discussed: positive mood. As I pointed out above, mood may be affected by cognitive processes of recall and imagination in the absence of a current event (Morris, 1989); the example from a diary which I just quoted (i.e. "I felt good thinking that the service user is getting help and will get better") seems to provide evidence for this effect. This relationship seems to have been most commonly studied in relation to negative events and mood; the idea that recurring thoughts about negative events, or *rumination* as it is often referred to, may have a negative impact on mood has received a considerable amount of attention in the literature (for recent examples, see e.g. Donaldson, 2005; Thomsen, Mehlsen, Christensen, Zachariae, 2003). That the opposite might apply to thoughts about positive events seems to have received less attention, but the findings from this thesis suggest that it may do so, and that this relationship warrants further attention.

Smiling: A Behavioural Symptom of Positive Mood

The final theme which was extracted from the participants' diary descriptions was related to behavioural indicators or symptoms of positive mood. Only a small number of examples were recorded, two of these were "I was still smiling when I got home" and "It made me laugh later on in the day when I thought about what had happened".

As with the previous outcome which I discussed, this theme seems to be clearly interlinked with positive mood. Smiling is a universal expression of a positive emotional state (Ekman, 1992), and as such it may be seen as providing corroborating evidence of a such a state at a later time, and one that was linked to the original emotional event. This link is particularly made explicit in the description "It made me laugh later on in the day when I thought about what had happened".

4.4. Interim Conclusions

All in all, this qualitative study successfully achieved its aims. Firstly, I was able to ascertain that the lexicon of positive emotions terms which I derived from the literature was on the whole sufficient for describing the range of positive emotions experienced by care workers. However, one further term – rewarded – was incorporated into the lexicon. Secondly, I was able to develop a framework of positive emotion-inducing events experienced by care workers for older people. The participants' descriptions suggested that positive emotional experiences were often the result of a concatenation of different events rather than a single discrete event, and also that different aspects of the same event might be seen as different causes of a positive emotion, depending on the appraised meaning of the event. The most common causes of positive emotions were related to being appreciated by clients and to completing tasks at work. Thirdly, I was also able to develop a framework of the immediate cognitive and behavioural outcomes of positive emotions. This encompassed changes in psychological states such as self-esteem, self efficacy, and a sense of purpose, and changes in motivation and action tendencies towards helping behaviours and thought-action tendencies (in the form of insights). Fourthly, this study enabled me to develop a framework of longer-term outcomes of positive emotions, those which affected the care worker for the rest of the day. These were classified in terms of effects on positive mood throughout the day, behavioural indicators of this mood, and recurring thoughts about the positive event.

These different frameworks were used to design the data collection tools for the quantitative study of this research, which enabled me to test the relationships between the various constructs elicited here. I now proceed, over the next three chapters of this thesis, to describe this quantitative study.

5. Positive Emotions Experienced by Care Workers, and their Antecedents

In this chapter and the next two (Chapters 6 and 7), I present the findings of the main body of empirical work that was carried out for this thesis. In this chapter, I focus on the part of the study which deals with (a) the positive emotions that were experienced by care workers, and (b) the antecedents of these emotions. Although the emotions and their antecedents comprise two separate sets of constructs which could arguably each merit a separate chapter in their own right, I have decided to incorporate them into one chapter because, as I pointed out in Chapter 1, in exploring the structure of positive emotional experiences at work I believe it may be possible to categorise these according to their respective antecedent factors.

The structure of this chapter will be as follows: I will begin with an introduction briefly recapitulating the need for real-time empirical work on positive emotions and their antecedents (as outlined in Chapters 1 and 2), reiterating the questions which I wished to address empirically and presenting the particular antecedent factors which I decided to consider. It is important to bear in mind that since this work is largely exploratory, I had few expectations about specific effects, so no hypotheses are proposed. Then I will outline the procedure that was used to collect the data, and describe the measures that were included. Next, I will introduce and describe the data analysis technique that was adopted, bearing in mind that this technique varies from the basic regression analyses that characterise most studies of workplace affect. Finally, I present the observed patterns of findings and discuss them with a view to shaping up a number of conclusions. The actual theoretical and practical implications of these findings I deal with in Chapters 8 and 9.

5.1. Introduction

Our current understanding of workers' positive emotional experiences and their antecedents is limited in a number of respects. Firstly, as I outlined in Chapter 1, researchers interested in learning about what makes people feel good at work have traditionally tended to focus on the rather vague construct of job satisfaction (Briner, 1999), and on the role of stable work environment features (such as autonomy, opportunity for skill use, etc.) as antecedents. Only recently have theoretical advances in the area – such as Weiss & Cropanzano's Affective Events Theory (1996), which

highlights the role of *events* and the emotional reactions they give rise to – begun to bring the field of study more in line with current mainstream theories of emotion.

Secondly, as I also pointed out in Chapter 1, most studies treat positive emotion as a global construct – consistent with many traditional frameworks of emotions (see e.g. Izard, 1977; Ekman, 1992; Power & Dalgleish, 1997) – with few recorded efforts to establish taxonomic boundaries among the many different positive emotions terms which people use to describe how they feel at work. It has recently been suggested that a more in-depth consideration of specific discrete emotions is warranted in our approaches to the study of workplace emotions (Brief & Weiss, 2002; Briner, 1999), since it is argued that specific discrete emotions are likely to constitute unique experiences, each determined by quite different antecedents.

Thirdly, as outlined in Chapter 2, most attempts to study positive affect at work have tended to rely on retrospective survey measures of typical mood, which although convenient and easy to use, are increasingly believed to be relatively inaccurate (see Fisher, 2002; Kahneman, 1999), and of limited value in telling us about the proximal causes of feeling good at work. It seems that to obtain more accurate self-reports of the precise situations that lead to positive emotional reactions, and to explore the structure of these experiences, it would be desirable to draw on methods which permit real-time assessments. An emerging and promising new direction in this field has been the use of diary studies (Bolger, Davis, & Rafaeli, 2003), as I argued in Chapter 2.

As a result, there is a feeling that there is still much work to be done to carry this topic of study forward. A number of questions remain unanswered: Which types of events are related to the experience of positive emotions in care work? Do work environment features predict the occurrence of these events, as hypothesised by the Affective Events Theory (Weiss & Cropanzano, 1996)? Do any person variables influence the experience of positive emotions, and if so what are they? Also, what is the structure of positive emotions experienced at work? Are they best explained by a general global factor, or does each emotion term (such as pride, enjoyment or enthusiasm) actually reflect a unique experience with specific antecedents? Do some positive emotions share antecedents, such that we might be able to classify them according to these features in common? I will now describe how I went about addressing each of these questions in turn.

5.1.1. Situational Antecedents: Which types of events are related to the experience of positive emotions in care work? Do work environment features predict the occurrence of these events?

As mentioned above, traditional approaches to employee positive affect have tended to focus on the role of stable work environment features as situational antecedents. According to more recent theories of affect at work, however, discrete events constitute more appropriate units of analysis, particularly if it is emotions I am interested in studying (Weiss & Cropanzano, 1996). Emotions differ from other affective states, such as moods, precisely in the sense that they are about a defining event or an object of interest (Frijda, 1993).

In Chapter 4, I presented the results of an exploratory qualitative study from which I derived a number of different categories for the various types of events that care workers identified as situational antecedents of their positive emotional experiences. In this quantitative phase of the research I wanted to prompt the participants to identify the events that made them feel good based on a checklist of these events. These were: *helping a client, client appreciation, client's family appreciation, chatting / joking with client, meeting up with a colleague, meeting a new client, making progress with a client, cheering up a client, a client being pleased to see the care worker, completing a task at work, seeing a client improve, making a client feel special or 'young again', applying skills and carrying out a nursing task*. For these events, I was interested in seeing (a) which would be the most commonly identified as a situational antecedent of a positive emotional experience, and (b) which would be related to higher intensity ratings on individual positive emotions.

Consistent with many contemporary theories of emotions (e.g. Frijda, 1993), and based on observations from the pilot study described in Chapter 4, I expected participants to report that on some occasions their positive emotional experiences would be the result of a concatenation of related events, and not always the outcome of a single discrete event. In other words, I expected that for some emotional episodes, more than one event item on the checklist would be identified. As a result, I was interested in seeing whether there would be any underlying themes in the participants' responses, so an exploratory factor analysis was conducted to look for patterns of responses.

I was also interested in seeing whether the occurrence of these events would be associated with the participants' own perception of the stable characteristics of their work environment. The Affective Events Theory (Weiss & Cropanzano, 1996) suggests that stable work environment features predispose the more or less frequent

occurrence of particular types of real-time events in the workplace. This makes intuitive sense. For instance, a work environment where the worker has a lot of contact with other people will be more likely to give rise to social interaction type events (which may in turn lead to positive emotional experiences) than one where the worker has little or no contact with other people. I therefore decided to take measurements of various features of the work environment (as perceived by the workers themselves) to see how these would tend to predict the reporting of related events.

5.1.2. Person-level Antecedents: Which person variables influence the experience of positive emotions in care work?

I was also interested in examining which person-level variables affected the experience of the positive emotions. According to many contemporary theories of emotion, events are appraised or evaluated in terms of their significance e.g. whether they are positive or negative and whether or not they affect the individual's personal needs, values and goals, a process which determines whether or not an event will provoke an emotion (see e.g. Lazarus, 1991). In other words, besides the actual event factor, each individual person's unique makeup also determines the extent to which they will experience an emotion in response to that particular event.

Obviously there are a large number of individual factors that could potentially be measured. Since there are few existing studies of real-time emotions at work, very few of these person-level variables have been considered before in the specific context of positive emotions, as I described in Chapter 1. In this thesis I decided to look at the possible influence of four work-related *needs* and one *work orientation* on the experience of positive emotions on the job; some of the constructs I chose were ones which I intuitively thought might be relevant to the nature of the target population, although no specific effects were expected. For the same reasons, several *demographic variables* were also analysed, in order to examine whether and how they contributed to positive emotional experiences. On a less exploratory note, I also included in the analyses a measure of *trait positive affectivity*; unlike the other measures, the specific importance of this variable in determining positive emotional experiences is fairly well documented in the literature, as I will soon describe.

Work-related Needs

The idea that an individual's needs might affect their behaviours and attitudes has long been acknowledged within mainstream psychology (Maslow, 1954; Murray, 1938). Researchers in organisational psychology only really began to acknowledge this in the 1970s (Hackman & Lawler, 1971; Steers, 1975); in 1976, Steers and Braunstein picked out what they argued were the individual needs most likely to be relevant to work scenarios, and designed their own Manifest Needs Questionnaire (Steers & Braunstein, 1976). The four individual needs included in this measure are the needs for achievement, affiliation, autonomy and dominance. The need for achievement is the desire to excel and involves attempting to improve on past performance. The need for affiliation is the desire to interact socially and to be accepted by others. The need for autonomy is the desire for self, rather than other, direction. The need for dominance, also referred to as the need for power, is the desire to influence and direct others. The internal consistency of these scales has since been ratified by some researchers (see Chusmir, 1988).

Steers and Braunstein (1976) argued – based on some early theories of motivation (McClelland, Atkinson, Clark & Lowell, 1953; Murray, 1938) – that these needs would be likely to impact on organisational variables such as job satisfaction and performance, depending on how well they were met in a given work environment. Since then, the scales from the Manifest Needs Questionnaire have been used to examine the relationships between these work-related needs and absence (Wegge & Kleinbeck, 1993), academic performance (Geiger & Cooper, 1995; Metofe, 2002), group behaviour (Mudrack & Farrell, 1995), job satisfaction (Okpara, 1997; Mpeka, 2003) and life success (Parker & Chusmir, 1992). However, they have not (to the best of my knowledge) ever been studied specifically in relation to the experience of positive emotions, most probably because the latter phenomena have received so little attention in the literature overall, as I pointed out in Chapter 1.

As I pointed out above, Lazarus's (1991) appraisal theory of emotions implies that an individual's needs greatly influence how they appraise events, and may contribute to explaining why one person reacts emotionally to a given situation and another does not. For this study, therefore, I decided to include an assessment of the needs that comprise the Manifest Needs Questionnaire (Steers & Braunstein, 1976): the needs for achievement, affiliation, autonomy and dominance. No particular effects were hypothesised, however, and the speculative inclusion of these variables reflects the exploratory nature of this study.

Work Orientation

Among other possible individual differences that may impact on worker's attitudes, behaviours or well-being at work, a worker's orientation towards his job has been recently singled out as particularly important. Wrzesniewski, McCauley, Rozin and Schwartz (1997) have argued that there are relatively stable ways in which people view their work – that do not just simply reflect the work itself – which may influence their work-related attitudes, behaviours and well-being. One of these, they argue, is the extent to which individuals regard their work as a *calling*. Wrzesniewski et al. (1997) have suggested that people who see their work as a calling tend to focus on the enjoyment of fulfilling, socially useful and intrinsically rewarding work, rather than on career advancement or financial rewards. This construct has since been studied in the context of job transitions (Wrzesniewski, 1999) and career counselling (Luzzo, 2000).

I believe that the extent to which one sees one's job as a calling represents an interesting construct with regards to the nature of my sample; care work is arguably a relatively vocational occupation, where the rewards are likely to be intrinsic rather than extrinsic. One could argue that workers who see their job as a calling might be more likely to interpret or appraise daily events in a more positive light, and as such they might be more likely to experience more frequent and/or more intense positive emotions at work. I decided to test for this possibility.

Positive Affectivity

It is fairly widely accepted that people may differ in the extent to which they are predisposed, in a general sense, to experience emotions; *affective traits* appear to act as latent and general predispositions that help set the stage for individuals to experience more or less intense emotional episodes. More specifically, *positive affectivity* is said to reflect a generally positive outlook on life, which should prime positively toned appraisals of situations (Lazarus, 1991). Those people high in positive affectivity tend to have sufficient coping resources and exhibit optimism in how they appraise events (Carver, Scheier, & Weintraub, 1989). Such individuals may therefore be prone to report more frequent or more intense positive emotions in response to work than those lower in positive affectivity (Watson, Clark & Tellegen, 1988).

I therefore decided to measure positive trait affectivity in this study. Some recent studies have found positive affectivity to be associated with the real time experience

of positive affective states at work (Fisher, 2002; Grandey, Tam & Brauburger, 2002). I expected this measure to be positively associated with the frequency and intensity of positive emotional experiences.

Demographic Variables

I was also interested in looking at the effect of certain demographic variables. One of these was gender. Gender and emotion is a topic which has received a great deal of attention in the scientific literature, with some evidence suggesting that females are more likely to report higher intensities of experienced emotions than males (e.g. Diener, Sandvik, & Larsen, 1985). Diener et al. (1985) suggest that this effect may be largely due to cultural expectations (i.e. gender stereotypes), such that men believe they are expected to be less emotional, and as such that they are less likely to admit more extreme emotions. However, some reviews suggest that the pattern of gender differences in emotional experience can be accounted for by differences in the methods by which these experiences are assessed; whilst studies that involve retrospective self-reports of emotional experiences tend to find differences that support the gender stereotype, methods which use experiential methods, such as diary studies, tend to report fewer gender differences (Fischer, 1993; LaFrance & Banaji, 1992). Therefore, I had no concrete expectations as to the possible effect of gender on the reporting of positive emotions in this study.

Another demographic variable I was interested in including in the analyses was age. The existing literature on the effect of age on the reporting of positive emotions is fairly inconclusive. Some studies have found that as people age, there is a decline in the frequency (Smith & Baltes, 1993) and intensity (Diener, Sandvik and Larsen, 1985) with which they self-report positive affect. To explain this effect, Diener et al. (1985), offered a number of explanations. One of these is biological, with the idea that younger persons may have greater levels of autonomic arousal. Another possible explanation is related to cultural expectations, such that older people may think that they are expected to be more 'mature' and less emotional. Lastly, there may be a habituation effect, such that repeated exposure to the same types of events somehow lessens the positive impact which these have on the worker. However, more recent work calls the direction of this effect into question, and even suggests that positive emotions may be more common in older people (see Mroczek and Kolarz, 1998). For this reason, I had no specific expectations with regards to the nature of any possible effects of age, but I was interested nonetheless in whether it might affect the experience of positive emotions in care workers.

Lastly, I was interested in examining the effect of tenure on the experience of positive emotions. I was curious as to whether employees who had been working for the care work providing organisation for longer would experience more or less frequent / intense positive emotions relative to those who were new to the job, although I had no specific expectations with regards to the nature or direction of any possible relationships.

5.1.3. What is the structure of positive emotions? Are they best explained by a general global factor? Do some positive emotions share antecedents?

A somewhat innovative aspect of my approach was to treat positive emotions as separate discrete units of analysis, following several recent recommendations in the literature to do so (Brief & Weiss, 2002; Briner, 1999). The positive emotions I examined were the nine that comprise the positive items of Fisher's (2000) Job Emotions Scale (proud, a liking for someone or something, enjoying something, enthusiastic, pleased, content, optimistic and happy), plus an extra emotion term (rewarded) elicited by workers in the qualitative study described in Chapter 4.

One of the aims of this thesis, as I set out in Chapter 1, was to determine whether the experience of positive emotions is best explained by a general basic positive emotion factor or whether, alternatively, it may be useful to treat each emotion term, or clusters of emotion terms, as unique experiences with their own specific antecedents and outcomes. In Chapter 1, I outlined two different ways of examining the structure of positive emotions at work. One of these is to examine the factor structure of the intensity ratings of individual positive emotion terms, looking for any underlying dimensions. The other is to look for patterns of differentiation through common antecedents; some cognitive psychologists have argued in favour of categorizing emotions based on the aspects of events that give rise to them (e.g. Ortony, Clore and Collins, 1988). In this study, I adopt both of these approaches in an effort to search for underlying dimensions of positive emotional experience at work.

5.2. Method

5.2.1. Participants and procedure

Data were collected with a diary protocol, in which participants completed entries at work over a 2-week period. At the end of the 2-week period, participants also completed a questionnaire. 218 home care workers for the elderly from the target

organisation were invited to take part in the study, of which 83 completed both parts of the study (diary and questionnaire). 6 of the 83 cases had to be eliminated from the sample because they failed to complete the diary within the parameters of the study design, making the final sample size 77⁴. For the multilevel analyses, another participant's data had to be excluded because there was no variation within the completed diary entries, making it unsuitable for those particular analyses. The mean age of the sample was 44.9 years (SD = 9.4) and the mean tenure was 7.2 years (SD = 7.3). An overwhelming majority of the sample was female (93.2%); most of the sample were 'shop-floor' level Care Assistants (70.7%) and the remainder were Senior Care Assistants (20.0%) and Rapid Response Workers (6.7%).⁵

Participants were sent packs containing (a) a diary, which consisted of sheets to be filled in each time they experienced a positive emotion at work, measuring the positive emotions and the events that were perceived to have caused them (see Appendix B); and (b) a questionnaire, measuring the person-level variables and work environment features (see Appendix C). The packs also contained instructions (see Appendix D), 'example' diary sheets (previously completed by the researcher) and a postage pre-paid envelope to return the completed diaries and questionnaires, as well as a promise of a small cash reward for completing the study. The diaries and questionnaires were distributed from within the organization by senior members of staff.

Participants were instructed to take the diaries to work with them every day. In response to a positive event, and as soon as possible thereafter, participants were asked to answer very brief questions about the nature of the event and about the positive emotion(s) they had experienced as a result. The completing of a diary sheet was therefore intended to be contingent on the experience of a positive emotional event at work. Each participant's diary contained a stack of sheets. A total of 514 sheets were completed over the two-week period, which worked out to an average of 6.8 diary sheets (SD = 2.4) per participant.

⁴ This sample constitutes approximately 8% of the total population of the organisation – see Chapter 3.

⁵ 2.7% of the sample did not state their job position.

5.2.2. Measures⁶

Positive Emotions

For the checklist of positive emotions I included all of those that comprise the positive items of Fisher's (2000) Job Emotions Scale: *proud, a liking for someone/something, enjoying something, enthusiastic, pleased, content, optimistic and happy*. For the item *a liking for someone/something* I decided to be more specific and to differentiate between *a liking for someone* and *a liking for something* and measured them as such. One additional positive emotion term, *rewarded* (which was elicited in the pilot study described in Chapter 4), was also included in the checklist, so the total number of positive emotions measured was 10. Participants were asked to rate on a sheet in their diaries the extent to which they had, during a given positive emotional episode, experienced each of the specific positive emotions on a scale of 1 (not at all) to 5 (a great deal).

A number of different measures were derived from the data collected on positive emotions, each with a specific purpose in mind. For descriptive purposes only, in this chapter I present data of the frequency and two different measures of the intensity with which positive emotional experiences – treated as a global construct – were reported. One measure of intensity was the average intensity across all ten positive emotions on each entry (aggregated across entries) – whilst the other was the average of the 3 most intensely-rated positive emotions on each entry (also aggregated across entries). However, since in this chapter none of these measures were used as units of analysis, I will wait until Chapter 6 (where they *are*) before providing an explanation of why each of these three measures was adopted. In this chapter, I was more interested in examining specific positive emotions individually rather than globally, looking for variation or overlap between the antecedents of each emotion. In constructing a model of the antecedents of each individual emotion, the intensity of each positive emotion was the dependent variable⁷.

⁶ Some of the measures presented here are derived from existing established psychometric scales. Unfortunately, at the time of publication, there were no available official norm data for any of these scales.

⁷ Using a frequency measure would have required dichotomising the intensity ratings (to establish whether a given emotion either had or had not been experienced on a particular occasion), resulting in a loss of information, and also making it necessary to use non-linear analysis techniques.

Events

Each of the 14 categories derived from the qualitative study were included in the diary sheets; respondents were asked to identify which type of event had caused them to experience the positive emotions (which had led them to fill in the diary sheet in the first place) by checking the box next to the relevant event category. In some cases the positive emotion was reported as being caused by a single event, but in most cases two or more events were checked, as some positive emotional experiences were perceived as being the result of a combination of events. A factor analysis was conducted on the 14 event categories to examine any possible patterns of responses, from which five factors emerged, accounting for 53% of the total variance. One factor incorporated the majority of these categories and was labelled social interaction with clients. It comprised the categories “cheering up a client”, “a client appreciating my work”, “a client being pleased to see me”, “helping a client”, “a client’s relative appreciating my work”, “chatting / joking around with a client” and “making a client feel special or young again” and had an alpha of .75. A second factor was labelled task performance, comprising the event categories “completing a daily task”, “carrying out a nursing task” and “applying skills”. This factor had an internal consistency of .65. For each of these two factors, an average score (determined by the number of events within that factor which were checked) was calculated for each emotional experience and these scales were used as a unit of analysis.

In other words, the degree to which a given situation would be classified as a social interaction or a task-related event would depend on how many items within each scale had been checked by the participant. This approach is based on the assumption that emotional experiences often tend to be driven not by one single discrete event, but by a series of events coherently organised around a single underlying theme (Frijda, 1993; Lazarus, 1991). Although this method of quantifying the situational antecedents of an emotional experience is imperfect, I have attached at the end of this thesis a more detailed explanation of these measures (see Appendix F) where I argue that it probably represented the most practical and parsimonious way of operationalising these events in this study.

I have not presented the results for the remaining three factors (each of which either had an unacceptably low internal consistency or comprised only one item) in order to keep the models as simple as possible and easier to view for the reader, given the vast number of variables that were considered here. However, it is worth pointing out that when these variables were included in the analyses, almost no significant relationships were observed.

The final event factors, with their respective items, and the reliability and frequency with which these items were reported, are presented in Table 5.1 below. For each of the two event factors that were retained for analyses (namely social interactions with clients and task performance), two different measures were used as units of analysis. The main one, at the level of the event ($n = 514$), was computed as I described above (by using the average of the number of events within each factor that were checked). However, another measure was also computed at the level of the individual ($n = 77$), by adding these event-level scores across diary entries to produce a single total score for each participant; the mean of these scores (across participants) is presented in Table 5.2. I will describe how each of these measures was used in the analyses in the next section.

Positive Affectivity

Positive Affectivity was measured using the positive items of Watson, Clark & Tellegen's (1988) PANAS scale. Respondents were asked to report how they experienced 20 different positive emotions on average, in their life as a whole, on a scale of 1 (very slightly or not at all) to 5 (extremely). In this study, this measure had an alpha of .93.

Work-related Needs

The four 5-item scales from the Manifest Needs Questionnaire (Steers & Braunstein, 1976) were included in my questionnaires. *Need for achievement* had an alpha of .66. A sample item is "I try very hard to improve on my past performance at work". *Need for affiliation* had an internal consistency of .62. A sample item from this scale is "I pay a good deal of attention to the feelings of others at work". The items for *need for autonomy* combined to produce an internal reliability of .45; a sample item is "In my work assignments, I try to be my own boss". Lastly, *need for dominance* had an alpha reliability of .76. A sample item from this scale is "I strive to gain more control over the events around me at work". The items in these measures were rated on a scale of 1 (never) to 7 (always). High scores on these variables signify high ratings on each need.⁸

⁸ A number of items in each scale were negatively valenced and their scores had to be inverted to compute the rating for that measure.

Work Orientation

A two-item measure of the extent to which participants saw their job as a calling was designed by asking them to rate two statements on a scale of 1 (strongly disagree) to 7 (strongly agree): *I see my work as a calling* and *My work is one of the most important things in my life* (the item in Wrzesniewski et al's (1997) 'calling' scale with the highest factor loading). This two-item scale had a reliability of .60.

Work Environment Features

To investigate the relationships between work environment features and events, I decided to look at six specific types of work environment features: social relationship with clients, social relationships with colleagues, pay and progression opportunities, the extent to which the work is challenging and interesting, training opportunities and flexibility of working hours and time planning. These variables emerged as discrete factors from a factor analysis that was conducted on a 33-item measure of work characteristics that was designed explicitly for the present study. The selection of these items was based on a consensus reached following a discussion with two other researchers about the types of work features that were likely to be relevant to home care workers, borrowing from existing scales (such as Hackman & Oldham's 1980 Job Diagnostic Survey). These items were further supplemented with items which were incorporated from the results of the qualitative diary study⁹.

Respondents were asked to rate the statements about their workplace on a scale of 1 (strongly disagree) to 5 (strongly agree). The factor *social relationships with clients* comprised 5 items: "my clients appreciate my work", "in my work I cheer a lot people up", "I can have a laugh with my clients", "I think my job makes a difference to other people" and "in my work I get the opportunity to help clients" and had an alpha reliability of .72. The factor *social relationships with colleagues* comprised 2 items: "my work colleagues are supportive" and "I can have a laugh with my work colleagues" and had an alpha of .80. The factor *pay and progression opportunities* consisted of 2 items: "I think the basic pay level is fair" and "there are good opportunities to progress in my organization", and had an alpha reliability of .66. The factor *extent to which work is challenging and interesting* comprised 6 items: "the job provides me with new challenges", "there is enough variety in my work", "I feel as though I am constantly developing in my work", "the job provides me with ample

⁹ The total list of items can be found in Appendix C, Question 1.

opportunities to use my skills”, “my job provides me with a suitable level of responsibility” and “my job is often interesting and exciting” and had an alpha of .90. The factor *training opportunities* consisted of 2 items: “there are opportunities for further training in my job” and “any training that is provided is generally useful” and had an alpha of .76. The factor *flexibility of working hours and time planning* comprised 2 items: “my working hours are flexible” and “I have the freedom to plan my work the way I want to” and had an alpha of .64. A score for each of these work environment features was computed using the mean of all items within each factor, thereby keeping the same scale of 1 to 5. The descriptive statistics and correlations for each of these work environment features are presented in Table 5.2 below.

5.3. Analyses

The main part of the analyses for the data presented in this chapter involved testing a model for each positive emotion, to examine the patterns of situation and person-level antecedents across individual positive emotions. Multilevel analysis was deemed to be the most appropriate approach for testing these models, for reasons which I will now discuss.

5.3.1. Multilevel Analysis

In this study, there are two different levels of data. One is at the level of the diary entry, which can be referred to as the micro-level data (for which the number of observations was 514), and the other is at the level of the participant, which can be thought of as the macro-level data (for which the number of observations was 77). This kind of data would therefore usually be described as having a *hierarchical, clustered or nested* structure.

Traditionally, researchers have tended to deal with this kind of data in one of two different ways. One common procedure involves aggregating the micro-level data (diary entries) to produce an average score for each macro-unit (participant). In this study, this would involve reducing the number of observations to 77. As Snijders and Bosker (1999) point out, there is nothing wrong with this approach as long as the researcher is only interested in macro-level propositions. Indeed, in Chapter 6 where I deal with the outcomes of positive emotions, I sometimes deal with positive emotions at this level of analysis. Here, however, I am interested not only in between-person variation (i.e. the effect of different person-level antecedents of emotion) but also in within-person variation (i.e. the effect of different situational antecedents of emotion

which vary from one diary entry to another). Aggregation of each participant's micro-level data would result in a massive loss of information, as the data for each specific emotional reaction to an event would be merged in the creation of average scores for each participant. A second approach would involve using each micro-unit as an independent unit of analysis, such that the number of observations would total 514. However, assuming statistical independence for each of these observations is clearly problematic, since the micro-units are obviously not sampled independently, they are dependent on the participants (macro-units) who each provided more than one micro-unit.

This so-called 'unit of analysis' problem has long been acknowledged by researchers (see e.g. Burnstein, 1980). Before multilevel modelling became well developed as a research tool, the problems of ignoring hierarchical structures were reasonably well understood, but they were difficult to solve because powerful general purpose tools were unavailable.

In recent times, an elaborate technique has been developed and made available to take such structures into account when carrying out statistical analyses. *Multi-level analysis* (Bryk & Raudenbush, 1992; Hox, 2002), as it is known (it is often also referred to as 'hierarchical linear modelling'), is rapidly becoming widespread within the social sciences, and also, more specifically, in studies of well-being at work (e.g. Van Veldhoven, de Jonge, Broersen, Kompier, & Meijman; 2002) and to analyse diary data (e.g. Sonnentag, 2001). Multilevel analysis allows data from more than one hierarchical level to be included in the same analysis. It estimates a measure of the degree of dependency within clustered observations so, for example, the statistical dependence in this study which results from using several observations (micro-units) from the same participant (macro-unit) is taken into account. This measure of the degree of dependency, often referred to as the intraclass correlation, essentially refers to the degree of resemblance between micro-units belonging to the same macro-unit.

Using multilevel analysis in this study would therefore allow me to estimate the variance in positive emotion scores due to variation in situational antecedents (events), for which the number of observations is 514, and the variance due to variation in person-level antecedents (dispositions), for which the number of observations is 77. The key advantages are that no information regarding each specific emotional reaction to an event would be lost, and the statistical dependence between diary entries belonging to same individual participant would be taken into account. Therefore, multilevel analysis was implemented in this study, using LISREL 8.3 (Jöreskog & Sörbom, 2000), to test a model for each positive emotion.

5.3.2. Other Analyses

Aside from testing a model of situational and person-level antecedents for each positive emotion, I was also interested in seeing whether each participant's perception of the features of their work environment would be associated with the reporting of different types of events. However, in this case, since all the independent variables were at the level of the participant (macro-level) and I was therefore only interested in between-person variation, I was less concerned about losing information about each specific emotional event. Therefore, I used aggregate (macro-level) scores of events for each participant and correlational data to determine whether any of the work environment features was associated with the occurrence of events.

5.4. Results - Descriptives

5.4.1. Events (*situational antecedents*)

Table 5.1 lists the event factors (and their internal consistencies where appropriate), their respective constituent items and the frequency with which these items were reported. From this table we can see that by far the most commonly reported types of event were those that comprised the event factor social interaction with clients (events in this category factor were identified on 859 occasions as contributing to a positive emotional experience). This event factor seems to be coherent both statistically (it showed an acceptable internal consistency: $\alpha = .75$) and conceptually (all the events within the factor seem to refer to aspects of the social interactions between the care worker and the client). The next most commonly reported types of event were those that comprised the event factor task performance. This event factor had a lower reliability ($\alpha = .65$) but also seems to be conceptually coherent (all of the events within the factor seem to relate clearly to task-related aspects of care work). The third event factor, client improvement, only consisted of two event items, and showed an unacceptably low internal consistency ($\alpha = .51$), and as I described above, was excluded from the analyses. The other two factors that emerged from the factor analysis, namely meeting up with a colleague and meeting a new client, each only comprised one item and were also not included in any of the analyses. Participants were also asked to report and describe other types of emotion-inducing events if these were not covered by the event checklist, but no extra events were reported often enough to be considered for any of the statistical analyses. A couple of examples are included in Table 5.1 below.

Table 5.1. Reliabilities and frequencies of situational antecedents (event factors and their items).

Event Factor	Events within Factor	Total no. of times that event type was reported	Total no. of times that events within factor were reported
Social Interactions with Clients ($\alpha = .75$)	Client appreciation	176	859
	Cheering up a client	145	
	A client being pleased to see the care worker	139	
	Helping a client	127	
	Chatting / joking with client	121	
	Client's family appreciation	97	
	Making a client feel special or 'young again'	54	
Task Performance ($\alpha = .65$)	Completing a task at work	104	220
	Applying skills	98	
	Carrying out a nursing task	18	
Client Improvement ($\alpha = .51$) (not included in analyses)	Seeing a client improve	78	113
	Making progress with a client	35	
Meeting up with a colleague ($\alpha = n/a$) (not included in analyses)	Meeting up with a colleague	85	85
Meeting a new client ($\alpha = n/a$) (not included in analyses)	Meeting a new client	73	73
Others (not included in analyses)	e.g. Receiving the NVQ award	1	25
	e.g. A colleague recovering from an illness	1	

N.B. These events were reported in 514 diary entries; most entries contained more than one event

Thus, only two event factors were retained for the analyses: social interactions with clients and task performance. As I described above in the Method section, two different measures were computed for each of these variables: one at the level of the event, and another total score for each participant. The event-level measures were used in the multilevel analyses which I present below. The participant-level scores were used to examine whether participants' reporting of these work events might be related to their

perception of equivalent features of their work environment (measured in the questionnaires); zero-order correlations between the participants' reporting of these work events (variables 7 and 8) and their perception of several different features of their work environment (variables 1 to 6) are also reported in Table 5.2.

Examining Table 5.2 we can see only one significant positive association between an event factor and a work environment feature. Those participants who gave higher scores on the variable that measured the extent to which they thought their work was challenging and interesting also reported scored more task performance events ($r = .25, p < .05$).

An examination of Table 5.2 also reveals that the scores of the two event factors were positively and significantly related to the frequency of positive emotional experiences (variable 15), although it must be borne in mind that these measures overlap empirically; the composite measures of each event factor was computed using the sum of events over the two week period (which is essentially equivalent to the frequency of positive emotional experiences). The event factors were not, however, associated with either of the intensity measures of positive emotional experiences (variables 16 and 17). Nonetheless, since the idea that particular events might be linked to the intensity of positive emotional experiences is clearly a micro-level proposition (as the number of observations for both variables is 514), it is inappropriate and inaccurate to rely on aggregated macro-level scores to test it. Furthermore, an aggregate measure of all positive emotions does not allow us to examine the possibility that some events might be related to higher scores on some specific positive emotions but not on others. Therefore, the next necessary step is to examine these relationships through multi-level analyses (see section 5.5 below).

5.4.2. Person-level antecedents

Table 5.2 also shows the means and standard deviations of the measures for each the person-level antecedents (the needs, the work orientation and the trait affectivity score), as well as the internal consistency of each measure. From this table we can see that some measures showed slightly lower reliabilities than the desired standard of .70 (namely the needs for achievement and affiliation, and the measure of seeing one's job as a calling), and in one case the reliability was unacceptably low (need for autonomy, $\alpha = .45$)

Table 5.2. Descriptive Statistics and Zero-order Correlations of Work Environment Features (1-6), Events (7-8), Person-level antecedents (9-14) and Positive Emotions (15-17)

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Social Relationships w/ Clients	4.34	0.37	.72														
2. Social Relationships w/ Colleagues	4.42	0.51	.49**	.80													
3. Pay & Progression Opportunities	3.44	0.73	.16	.06	.66												
4. Challenging/Interesting Work	4.21	0.57	.29**	.39**	.41**	.90											
5. Training Opportunities	4.38	0.53	.21	.23*	.28*	.57**	.75										
6. Flexibility of hours/time planning	3.53	0.76	.05	.19	.27*	.44**	.13	.65									
7. Social Interactions w/ clients	1.63	1.72	.05	.01	.23	.23	.09	.17	.75								
8. Task Performance	0.97	1.09	.07	.04	.23	.25*	.20	.21	.83**	.65							
9. Need for achievement	22.8	3.4	.04	.03	-.00	.18	.31**	.01	-.24*	-.02	.66						
10. Need for affiliation	20.7	3.0	.02	.20	.10	.03	-.10	.14	-.19	-.12	-.03	.62					
11. Need for autonomy	12.5	4.2	-.04	.12	.05	.14	.01	.21	.08	.18	.20	-.03	.45				
12. Need for dominance	17.9	5.5	-.12	.10	-.07	.22	.10	.22	.07	.17	.37**	.13	.35**	.76			
13. Seeing job as a calling	10.1	2.8	-.06	.06	.24*	.31**	.26*	.32**	.03	.10	.21	.11	-.02	.26*	.60		
14. Positive Affectivity	76.7	9.6	.11	.13	.20	.30**	.25*	.22	.30**	.38**	.18	-.13	.05	.24*	.31**	.93	
15. Frequency of Positive Emotions	6.8	2.4	-.03	-.12	.17	.09	.18	.18	.46**	.44**	-.05	-.21	-.04	-.08	.05	.22	–
16. Intensity of all Positive Emotions	3.5	0.86	.15	.19	.18	.25*	.13	.05	.00	.11	.15	.20	-.09	.02	.21	.40**	-.01
17. 3 most intense Positive Emotions	4.2	0.75	.25*	.27*	.17	.32**	.21	.02	-.02	-.08	.08	.19	-.13	-.00	.23*	.37**	-.05

Note. N = 77 Measures of Events (7, 8) and Positive Emotions (15, 16, 17) were obtained from the diary entries but aggregated at the level of the participant
* = p < .05, ** = p < .01 Alpha coefficients are located in the diagonal.

There were few significant correlations between these person-level antecedents on the one hand and the global measures of positive emotions on the other. Positive affectivity was associated with both intensity measures of positive emotions (with the average intensity across all emotions: $r = .40, p < .01$ and with average of the 3 highest intensity emotions: $r = .37, p < .01$) but not with the frequency of these experiences. Seeing one's job as a calling was associated with higher scores on only one of the intensity measures (with the average of the 3 highest intensity emotions: $r = .23, p < .05$). None of the work-related needs were related to any measures of positive emotional experience. However, as with the situational antecedents described in the previous section, using an aggregate measure of all positive emotions does not allow us to examine the possibility that person-level variables might be related to higher scores on some specific positive emotions but not on others. The effects of these person-level variables were therefore examined in more depth in the models that were constructed for each individual positive emotion through multi-level analysis (see section 5.5 below).

5.4.3. Positive Emotions

Table 5.2 shows the means and standard deviations of the three different global measures of positive emotional experiences: the frequency, the average intensity across all ten emotions and the average of the 3 highest intensity emotions. The frequency of positive emotional experiences was unrelated with the reported intensity of positive emotional experiences (on either measure of intensity).

Table 5.3 shows the means and standard deviations of the intensity ratings of each individual positive emotion. Table 5.3 reveals that the positive emotion term which received the highest intensity ratings on average was 'rewarded', which was given a mean intensity rating of 3.88 (out of 5). An exploratory factor analysis was conducted on the intensity ratings of the positive emotion terms to examine their structure. The results of this revealed that the 10 positive emotions formed one single relatively tight factor, which accounted for 54% of the variance in the intensity ratings.

Table 5.3. Intensity statistics for individual positive emotions

	N=514	
	Intensity	
	Mean	SD
<u>Positive Emotion</u>		
Rewarded	3.88	1.31
Happy	3.87	1.30
Pleased	3.76	1.33
Enthusiastic	3.63	1.27
Content	3.44	1.40
Enjoying something	3.43	1.39
Liking for someone	3.32	1.33
Optimistic	3.05	1.44
Proud	3.20	1.47
Liking for something	2.74	1.40

5.5. Results - Multi-level Analysis

As mentioned above, following a number of recommendations in the literature to treat specific emotions as individual, unique experiences (Brief & Weiss, 2002; Briner, 1999), I wanted to test a model for each positive emotion.

Multi-level analysis starts with an empty model, called the independent model, containing only the fixed effect for the grand mean of the individual diary entries on the dependent variables (i.e. each positive emotion) and the random effects for situation and person-level variables, respectively (see Table 5.4).

Table 5.4 reveals that, on the whole, the raw variance in most positive emotions was predicted in roughly equal proportions by both the situation (events) and the person (dispositions). It is perhaps worth pointing out that in this type of analysis it is usually the lowest level (i.e. the one with most observations), in this case the situation, which accounts for the vast majority of the variation.

Table 5.4. Distribution of variance for both levels in the empty models of each positive emotion.

Dependent variable	Level	
	Situation	Person
Proud	47%	53%
Liking something	45%	55%
Liking someone	63%	37%
Enjoying something	55%	45%
Enthusiastic	55%	45%
Content	54%	46%
Pleased	53%	47%
Optimistic	57%	43%
Happy	54%	46%
Rewarded	66%	34%

5.5.1. Building each positive emotion model stepwise

The independent variables were entered stepwise into the empty multilevel model for each of the ten positive emotions. The situation variables were entered first since they had the highest number of observations (n=514). Those variables which were not significantly associated with the dependent variable (i.e. the positive emotion) were then withdrawn from the model one by one until only significant relationships remained. Next, person variables were examined (n=77). First, the disposition variables were added to the model, and similarly each non-significantly related variable was removed one by one. The same procedure was then repeated for the demographic variables. The end result was a final model for each individual positive emotion containing only significant predictor variables, as can be seen in Table 5.5. Given the large number of variables in my design, and particularly the exploratory nature of this study, I found this procedure to be the most parsimonious and logical way of analyzing and presenting my findings.

5.5.2. Explained variance

I wanted to assess whether the independent variables entered into each positive emotion model added a significant amount of explained variance to the independent

(empty) model. For this purpose, measures of deviance were used. A deviance measure is part of a likelihood ratio test in multilevel analysis (Bryk & Raudenbush, 1992). The change in deviance (also known as chi-square distributed), degrees of freedom (df) and level of significance (p value) for each emotion was calculated and is reported in Table 5.5. Looking at the results I can see that, for all ten positive emotions, the final models explained significantly more variance (each at the $p < .001$ level) than the independent models.

5.5.3. *Patterns of relationships*

I regressed the independent variables that remained in each model after the stepwise procedure described above, examining the fixed (main) and random (interaction) effects for each one. Tests for random effects of these independent variables produced no significant results, indicating that there were no statistical interactions between situation and person-level variables. Therefore, the data I present are for fixed effects only. Table 5.5 shows the statistically significant fixed effects for situation and person-level antecedents on each positive emotion.

In terms of the situation-level antecedents, Table 5.5 reveals that *social interactions with clients* predicted higher intensity ratings for six of the ten positive emotions (proud, liking someone, enjoying something, rewarded, content and happy) and lower intensity ratings on one emotion (optimistic). The event category *task performance* was also associated with certain positive emotions, but the pattern of relationships was quite different than for social interactions. It was positively associated with four positive emotions (namely liking something, enthusiastic and optimistic and proud), the first three of which were either unrelated or negatively related to the social interaction-type events. It was also negatively associated with the intensity of two positive emotions which were in turn positively associated with social interactions (namely liking someone and feeling happy).

In terms of the dispositions which were examined, positive affectivity seemed to be the most influential; it was significantly associated with nine of the ten emotions (i.e. all except liking something). Also very influential was the need for affiliation, which was positively associated with eight of the ten positive emotions (namely feeling proud, liking someone, enjoying something, rewarded, enthusiastic, content, pleased and happy). An individual's need for achievement only predicted the experience of one positive emotion, but interestingly (for reasons which I will discuss in a moment) one that was unrelated to the need for affiliation (namely a liking for something). Need for dominance was negatively associated with the experience of

three emotions (proud, rewarded and content). The extent to which participants saw their work as a calling was positively associated with three positive emotions (enjoying something, liking something and enthusiastic). The need for autonomy was not predictive of the intensity with which any positive emotions were experienced.

Table 5.5 also reveals that the most influential demographic variable was gender. Female respondents reported significantly higher intensity ratings than their male counterparts on seven of the ten positive emotions (liking someone, enjoying something, content, pleased, happy, liking something and optimistic). Age was also found to be predictive of the intensity of positive emotional experiences, in that it was negatively related to the experience of two positive emotions (enthusiastic and happy). Tenure, in turn, was significantly and negatively associated with the intensity ratings of five emotions (happy, rewarded, content, pleased and optimistic).

Table 5.5. Slopes of Situation and Person Antecedents (IVs) for each Positive Emotion (DVs) and Model Comparisons (Independent vs Final).

DVs: Positive Emotions		Liking someone	Happy	Enjoying something	Rewarded	Content	Pleased	Proud	Enthusiastic	Optimistic	Liking Something
IV: Situation – Event (n = 514)											
Social Interactions with Clients		.21 ***	.14 ***	.07 *	.14 **	.11 **		.17 ***		-.09 *	
Task Performance		-.11 **	-.09 *					.09 *	.08 *	.07 Ø	.07 *
IV: Person – Disposition (n = 77)											
Seeing Job as a Calling				.17 *					.20 **		.21 **
Positive Affectivity		.17 *	.25 ***	.23 **	.25 ***	.31 ***	.28 ***	.30 ***	.22 **		
Need for Achievement											.22 **
Need for Affiliation		.24 **	.14 Ø	.17**	.18 **	.19 **	.25 ***	.19 *	.17 *		
Need for Autonomy											
Need for Dominance					-.14 *	-.25 ***		-.14 Ø			
IV: Person – Demographics (n = 77)											
Gender (male=0; female=1)		.21 **	.23 **	.35 ***		.16 *	.22 **			.17 *	.30 ***
Age			-.15 Ø						-.16 *		
Tenure			-.15 Ø							-.14 Ø	
Independent Model		Deviance	1324.18	1273.57	1280.69	1266.62	1265.26	1208.89	1274.25	1282.86	1203.75
(empty)	Final Model (with IVs)	D f	3	3	3	3	3	3	3	3	3
		Deviance	1245.29	1125.99	1209.21	1198.34	1186.59	1163.85	1142.55	1236.06	1153.33
Change in Deviance		D f	8	10	8	9	7	8	8	7	7
		Deviance	78.89	147.58	71.48	68.28	78.67	45.04	131.7	46.8	50.42
P value		D f	5	7	5	6	4	5	5	4	4
			<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001

Note: Standardized beta regression coefficients. Ø = p < .10 * = p <.05 ** = p <.01 *** = p <.001
Only significant associations are presented because variables that show non-significant associations are withdrawn from the model (see section 5.5.1).

5.6. Discussion

One of the main aims of this chapter was to test models of the situation- and person-level antecedents of ten different positive emotions. It was found that both situation (events) and person (dispositions) variables made considerable contributions to the statistical explanation of each positive emotion (as illustrated in Figure 5.1 below). In this section, I will first describe how each type of situation and person-level antecedent was related to the experience of the positive emotions. I will then argue that these patterns of relationships point towards the existence of two distinct categories of positive emotional experiences.

I will use this discussion primarily as a way of shaping up the conclusions of the findings that were observed here; the actual implications of these findings – in terms of progressing what we already know about the antecedents of positive emotions at work – I will deal with in more depth in Chapters 8 and 9.

5.6.1. *Interactions between antecedents?*

To begin with, it is worth noting that no statistical interactions were observed between each set of antecedents. However, since by most contemporary definitions an emotional state constitutes an interaction of an individual with his or her environment, the observed linear effects can be thought of as *additive* interactions. In other words, person-level variables are likely to have determined, to a certain extent, whether a particular situation provoked an emotional reaction in the first place, and thus whether it was reported in the diaries. As Pervin and Lewis (1978) have pointed out, positing main effects for both personality and situational factors is entirely consistent with an interactional perspective (contrary to more narrow views of interactionism). In a sense, therefore, each emotion can be thought of as an interaction of the specific situation and person antecedents which were associated with it.

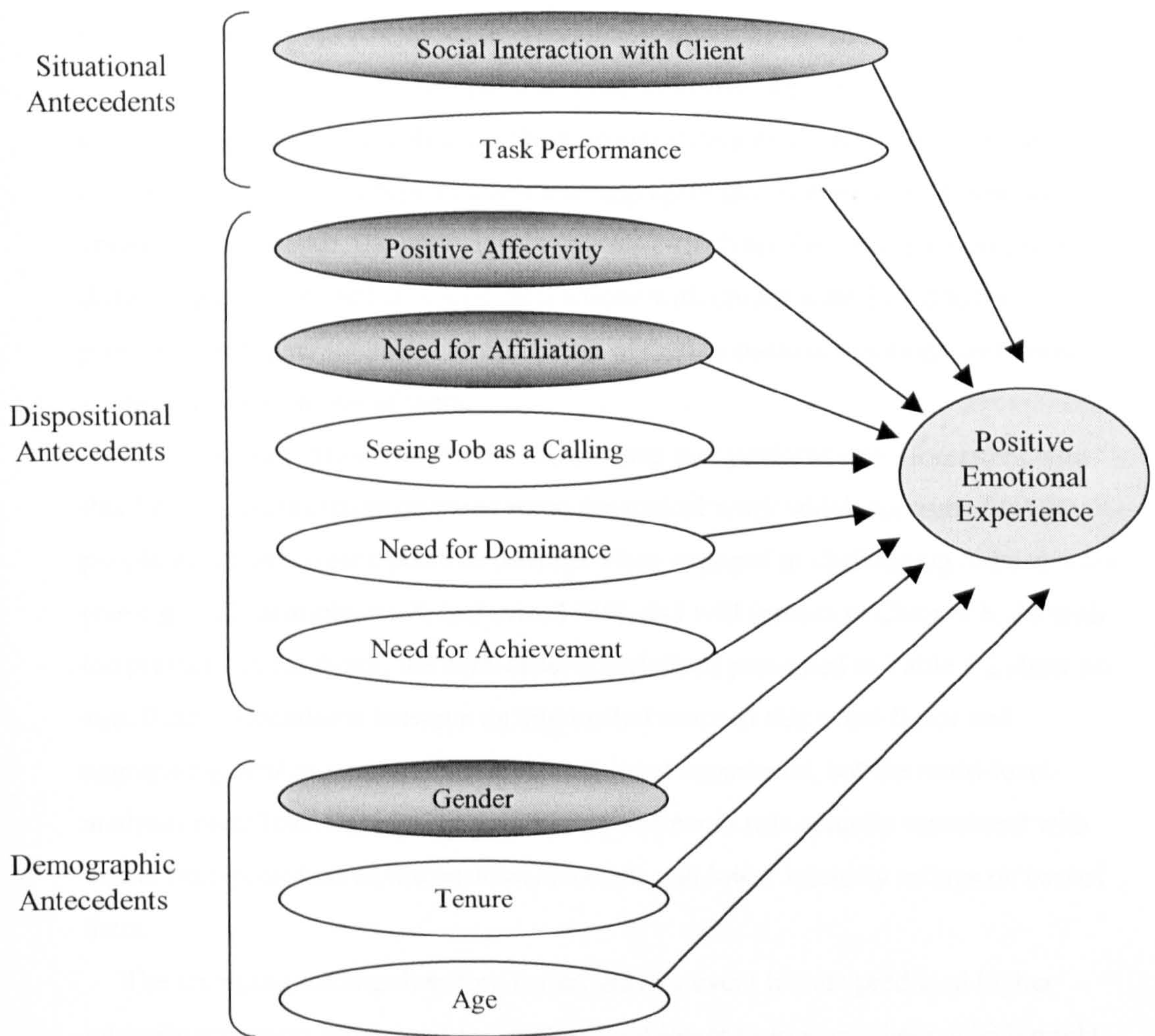


Figure 5.1. Situation and Person-level Antecedents of Positive Emotion Intensity.

N.B.: Strong Predictors (predictive of 6-10 or more positive emotions) are shaded in dark grey; Weak or Moderate Predictors (predictive of 1-5 positive emotions) are unshaded.

5.6.2. Situational Antecedents: Which types of events are related to the experience of positive emotions in care work? Do work environment features predict the occurrence of these events?

Some contemporary theories of affect at work (e.g. Weiss & Cropanzano, 1996) state that events constitute the most appropriate units of analysis for studying situational antecedents of emotions at work. The findings of this study reveal that events that involved social interactions with clients were by far the most commonly elicited causes of positive emotions in care workers for older people. These findings are consistent with research in more general (less applied) areas of psychology, which has

found that the events that constitute the most common antecedents of emotions relate to social relationships and social interactions (Kemper 1978, Shaver, Wu & Schwartz, 1992), but I will expand on this point in Chapter 8. Although the zero-order correlations presented in Table 5.2 show no significant associations between an aggregated score of this type of event and aggregate global measures of positive emotional experience, the multi-level analyses (which are far more accurate) reveal a different picture altogether: social interactions with clients were found to be predictive of higher intensity ratings on six of the ten positive emotions and lower intensity ratings on one of them.

The next most influential event category was task performance. Consistent with this finding, the literature contains some theoretical work which accounts for how people might experience positive feelings when engaged in challenging tasks at work (see e.g. Csikszentmihalyi & LeFevre, 1989), as I will discuss in Chapter 8. As with the previous event factor, the zero-order correlations presented in Table 5.2 show no significant associations between an aggregated score of this event factor and aggregate global measures of positive emotional experience, but the multi-level analyses reveal that the reporting of this type of event was actually associated with higher ratings on four of the positive emotions and lower intensity ratings on two of them.

The emerging finding therefore is that the two event factors predicted higher intensity scores on some positive emotions but lower scores on others, which might help explain why no significant associations were found when global aggregated measures (masking any individual relationships) rather than specific emotions were used as the unit of analysis. I discuss the significance of the particular patterns of associations below in section 5.6.4.

I was also interested to see whether, consistent with the Affective Events Theory's (Weiss and Cropanzano, 1996) predictions, the reporting of events would be related to stable features of the work environment which might be likely to give rise to these events. In retrospect, knowing that the most common types of emotion-inducing events were social interactions with clients and task performance, I would have expected these to be to some extent predicted by participants' perceptions of the kinds of work environment features which are specifically linked to these types of events.

This expected effect was only partly supported by the data. Participants who gave high ratings on items that implied opportunities for favourable social relationships with clients did not necessarily report more social interaction events of this type. Interestingly though, participants who gave higher ratings on such items also scored significantly higher on one of the intensity measures of positive emotions (see Table

5.2). In other words, social interactions were found to be an important predictor of the average intensity of positive emotional experiences at work, but somehow their operationalisation as stable work features (in the questionnaire) and as events (in the diaries) did not share any common variance. This finding is not particularly easy to interpret, since most of the items in either measure were relatively similar. One could speculate that this failure to find a relationship might be partly due to a somewhat restricted range on the questionnaire scale of social relationships with clients. This scale ranged from 1 to 5 – with higher ratings indicating more favourable perceptions of the work feature – and the minimum and maximum statistics for this measure were 3.80 and 5.00 respectively, resulting in a range of 1.20. This suggests that all participants gave relatively favourable ratings to this aspect of their work (i.e. all care workers generally tended to agree that the work provided them with opportunities for social relationships with clients), which might have made it harder to find any significant effects for this variable. The restricted range of this variable stands in contrast to that of the other work environment features e.g. *extent to which work is challenging and interesting* (3.33), *social relationships with colleagues* (2.00), *pay and progression opportunities* (3.50), *training opportunities* (2.50) and *flexibility of working hours and time planning* (3.50). One could also speculate that the failure to find a relationship might also relate to the way in which events were operationalised here¹⁰ (see also Appendix F).

However, some of the findings do support the kind of effect proposed by the Affective Events Theory. Participants who reported that their work was challenging and interesting were also more likely on average to report positive events which involved task performance. This finding makes intuitive sense, as it is not difficult to see how such events would be linked with that particular aspect of working life. Interestingly, the reporting of this type of events was not predicted by scores on other, less related work environment features such as pay conditions or opportunities for social relationships.

It is important to note that the types of events that were elicited in the diaries only seem to relate, in terms of semantic similarity at least, to a relatively restricted number of work environment features: social relationships and having challenging work. Other work features which are traditionally assumed to be important predictors

¹⁰ However, it is perhaps worth pointing out that a number of alternative ways of operationalising these events was attempted (for example, using the aggregated score of an event factor across events i.e. dividing each participants' total score by their frequency of diary entries; another attempt involved using a dichotomous rather than scale measures i.e. if one event out of seven within the factor was identified, this would be weighted the same as if all seven events had been identified), but in each case, there was *no* observed relationship between the reporting of events and the perceived work environment feature.

of work attitudes, such as pay conditions or flexible working patterns, do not seem to be represented by the kinds of events that were reported in the diaries. I will return to this discussion of the relationship between work environment features, work events and positive emotions at work in Chapter 7.

5.6.3. Person Antecedents: Which person variables influence the experience of positive emotions in care work?

Consistent with many contemporary theories of emotion (e.g. Lazarus, 1991), it was hypothesised that certain person variables would be likely to affect the way that situational variables (events) were appraised and therefore the experience of positive emotions at work.

The zero-order correlations reported in Table 5.2 show associations between only a small number of these person variables with the aggregate measures of global positive emotional experiences (in particular, it is interesting to note that *none* of these variables were related to the frequency with which positive emotions were reported¹¹). However, a more complex and informative pattern of effects can be observed from the results of the multi-level analyses, reported in Table 5.5.

The most influential person-level antecedent was positive trait affectivity, which positively predicted the intensity with which all but one of the positive emotions was experienced. This finding is consistent with previous work on the experience of real time positive affect (Fisher 2002; Grandey, Tam & Brauburger, 2002). I will suggest a number of explanations for this effect in Chapter 8.

The next most influential person-level variable after positive affectivity was the need for affiliation; Table 5.3 reveals that this need often predicted the same emotions that were also predicted by social interactions; in other words, care workers with a high need for affiliation particularly enjoyed social interaction types of events. The need for achievement was only related to the experience of one positive emotion; those workers for whom performance and achievement were important were more likely to report higher ratings of intensity one positive emotion, and interestingly one that also predicted by task performance. It was unrelated to any of the positive emotions predicted by social interactions. In other words, those care workers with a high need for achievement might have been more likely to enjoy their tasks but no more likely to enjoy social interactions. I will continue to discuss the significance of

¹¹ I discuss the measure of the frequency of positive emotions (and its diminished importance) in more detail in Chapters 6 and 9.

the observed relationship for these two particular needs (the needs for affiliation and achievement) in section 5.6.4.

Two of the other dispositional variables were found to be predictive of the intensity of some of the positive emotions. The need for dominance predicted lower intensity ratings on three emotion terms. Also, the extent to which participants saw their work as a calling was positively associated with three positive emotions. I will discuss the significance of these findings in Chapter 8.

Demographic variables were also found to be related to positive emotional experience. Gender in particular appeared to play a major role: females gave more intense self-reports on almost all of the positive emotions, although the generalisability of these findings is obviously somewhat restricted by the massively disproportionate ratio of females to males in my sample (approximately 9:1) and, more importantly, the low number of male participants ($n = 5$). Age was significantly associated with lower intensity scores on some positive emotions, consistent with the findings of Diener et al. (1985), as was tenure. I will discuss each of these findings in depth in Chapter 8.

One dispositional variable, the need for autonomy, was not predictive of the intensity with which any positive emotions were reported. It is worth noting that this construct showed a disappointingly low internal consistency (see Table 5.2), which may explain, in part, the lack of any observed relationships. In fact, given that the internal reliabilities of several of the needs scales which I adopted (from the Manifest Needs Questionnaire; Steers & Braunstein, 1976) were somewhat low, it seems that it would be advisable to treat the observed relationships with a degree of caution, and it might be worth attempting to replicate the findings with alternative scales. In recent times a new Needs Assessment Questionnaire has been proposed (Heckert, Cuneio, Hannah, Adams, Droste, Mueller, Wallis, Griffin & Roberts, 2001), based on factor analytic work, with the same number of items but better internal consistency than that displayed by the Manifest Needs Questionnaire (Steers & Braunstein, 1976).

Having summarised the findings regarding the antecedent factors which contribute towards positive emotional experiences, I now move on to discuss the structure of these experiences. As I will demonstrate, it may be possible to differentiate between different types of positive emotional experiences at work through a consideration of their antecedent factors.

5.6.4. Structure of positive emotions and differentiation through antecedents: socially-oriented vs. task-oriented emotions?

An exploratory factor analysis of the intensity ratings of the ten positive emotions revealed one single factor structure, indicating an overall factor of intensity; in other words, the overarching dimension of positive emotion is its intensity (when the experience feels intense, all or most of the items generally tend to receive high intensity ratings). However, by looking closely at the data, it may be possible to discern a more subtle, lower order differentiation. The multilevel analyses showed that when the ten positive emotions were treated individually they often had quite different (and in some cases opposite) antecedents, reflecting the different nature of experience of each emotion.

I decided to explore the different patterns of antecedents in more depth. Examining the nature of the different predictors, I found some indication of the existence of two qualitatively distinct categories of positive emotions, defined in terms of the antecedents associated with them. The majority of positive emotion terms were positively associated *either* with events that involved social interactions (i.e. liking someone, enjoying something, rewarded, content and happy) *or* with events that involved task performance (i.e. liking something, optimistic and enthusiastic), and in some cases those that were positively associated with one type of event were negatively associated with the other (i.e. liking someone, liking something and optimistic). This led me to speculate that the positive emotions experienced by care workers may be conceptually divided into two groups: those which are *socially-oriented* and those which are *task-oriented*. Socially-oriented positive emotions would be those which are brought about by pleasant social interactions with elderly clients; task-oriented positive emotions, on the other hand, would be brought about by more tangible task-related, goal-oriented behaviour.

To illustrate my argument to the reader, I have organized the emotions in Table 5.5 in such a way that those which were found to be positively associated with social interactions (socially-oriented) are to the left side of the table (with a liking for someone being the most extreme example) and those which were found to be associated with task performance (task-oriented) are to the right side of the table (with a liking for something being the most extreme example). As can be seen in the table, there is little overlap between these categories. Interestingly, the only emotion term that was positively associated with both types of event factor was pride, and post-hoc analyses revealed that the items of the social interactions factor which accounted for most of this effect were “a client appreciating my work” and “a client’s relative

appreciating my work”, which clearly relate to recognition of task achievement. Since recognition implies a social element, perhaps in certain specific cases such as this, the proposed dimensions overlap to some extent.

The existence of these two tentative categories is also largely supported by the nature of the dispositional needs which were associated with each type of emotion. The need for affiliation and the need for achievement each seem to correspond rather neatly to the two categories. The need for affiliation was associated with a number of emotions, and largely the same ones which were also associated with social interactions, but interestingly not with the experience of liking something or with feeling optimistic, which were predicted instead by one or both of (a) the need for achievement and (b) task performance. Since the need for affiliation is defined as the desire to interact socially and to be accepted by others, it makes intuitive sense that people who score high on this measure would be likely to report more intense emotions in response to social interaction events; similarly, the need for achievement is defined as the desire to excel and involves attempting to improve on past performance, so it would make intuitive sense that people who score high on this measure would be likely to report more intense positive emotions in response to more task-related situations. This pattern of differentiation can be observed in Table 5.5, as mentioned above, and also in Figure 5.2 below. Although the data is not entirely conclusive (for instance, feeling enthusiastic provided an exception to this rule), I believe it provides enough suggestive evidence of a general pattern of differentiation. Even if all ten positive emotions demonstrated an overall underlying common factor of intensity, it seems that they can be differentiated according to the nature of their specific antecedents, both situation- and person-level.

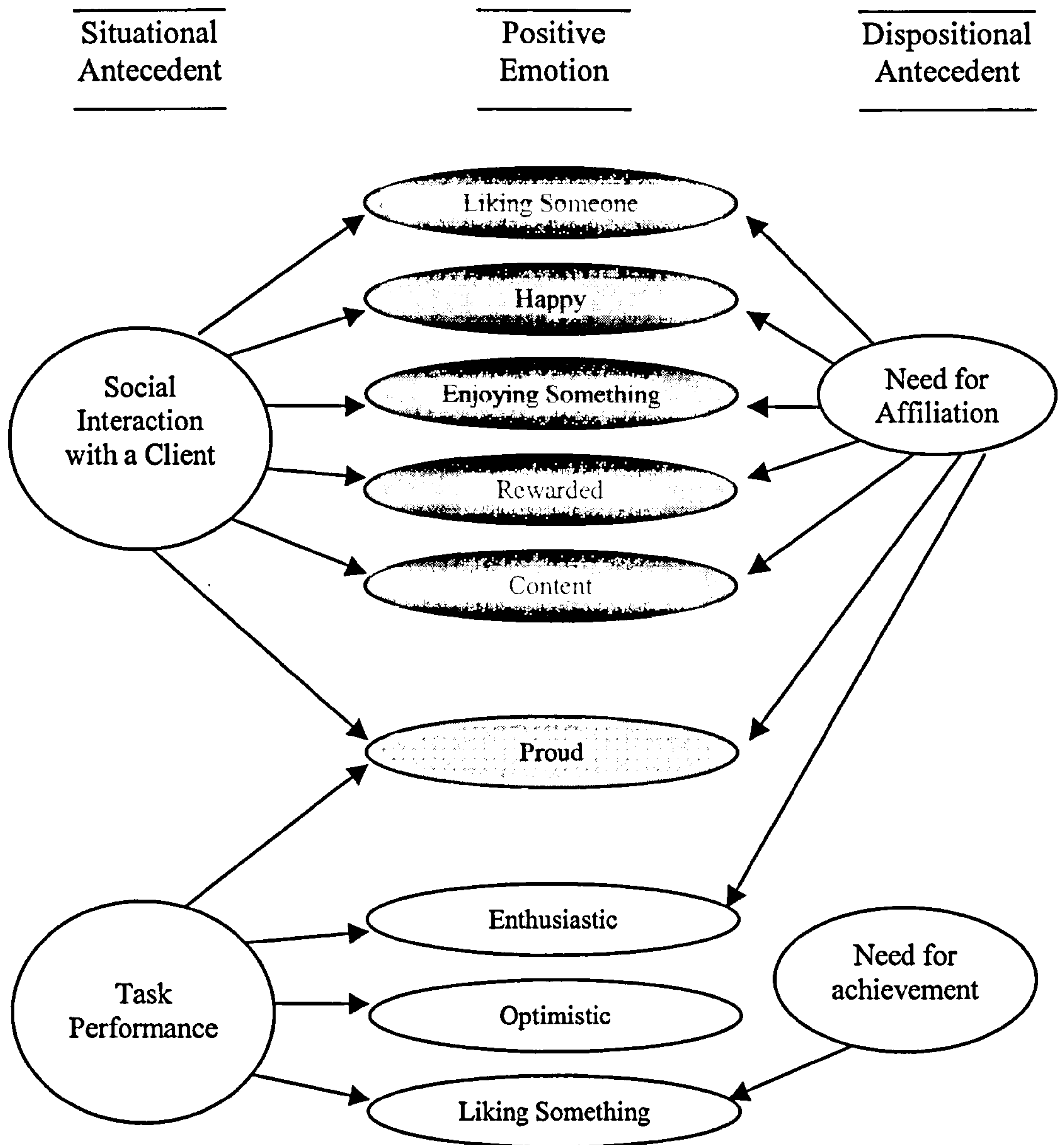


Figure 5.2. Socially-oriented (shaded grey) and task-oriented (not shaded) positive emotions, as determined by their situational and person-level antecedents. N.B. The positive emotion *proud* is lightly shaded as it was predicted by both types of situational antecedent. The positive emotion *pleased* has been omitted from this framework since it was not associated with either situational antecedent.

How does this proposed pattern of differentiation fit with the individual meanings of the positive emotion words themselves? As I suggested above, liking someone and liking something seem to represent, both semantically and in terms of the observed patterns, the most extreme examples of the two categories, socially-oriented and task-oriented positive emotions, respectively. What about the other emotion words? Rewarded and content one might argue are contemplative emotions and therefore perhaps less likely to reflect the feelings experienced when absorbed in task

performance and more likely to reflect the feelings experienced during pleasant social interactions with clients. Happy would initially appear to be a very non-specific positive emotion term, but the findings clearly show that it was positively related to social interactions and negatively related to task performance. Perhaps happy also describes a more contemplative type of state, rather than one of being absorbed in a task. That enjoying something should be classed as a socially-oriented positive emotion is perhaps harder to interpret because it would intuitively seem to be more obviously related to an activity rather than another person; however, one could argue that this item captured enjoyment of a social interaction, rather than a task (e.g. enjoying chatting to someone whilst working). Enthusiastic was found to be a task-oriented emotion, which makes intuitive sense, as the term seems to convey the notion of having a task- or activity-related object (as in enthusiastic about doing something). The other task-related emotion word was optimistic, an emotion which seems to imply looking towards the future with a positive outlook. Why this emotion adjective should be positively associated with tasks and not social situations is not immediately obvious. One could speculate that task performance, which in some cases appeared to explicitly involve applying skills, helped the care workers to feel empowered through their acquired technical abilities and capable of using these abilities to make a difference to their clients in the future. This interpretation is, of course, fairly speculative.

The fact that not all positive emotions intuitively fit the two proposed categories suggests that these do not necessarily constitute the only two conceivable dimensions of positive emotional experience; clearly this categorisation is limited by the two exclusive categories of events that were considered as antecedents. However, in Chapter 9 I will argue that this particular categorisation may provide a useful heuristic for classifying workplace positive emotions, for both theoretical and practical reasons. In the next chapter, I will show that differentiating between distinct types of positive emotional experience may make it possible to make more specific predictions about the outcomes of positive emotional experiences at work. Now, to finish the current chapter, I will outline the main conclusions of the results presented here.

5.7. Interim Conclusions

In this chapter I looked at the antecedents of ten different positive emotions experienced on the job by home care workers for the elderly. The main findings from the empirical work that was presented here are the following:

- The most commonly reported situational antecedents of positive emotional experiences at work, as reported by care workers, were events which involved social interactions with clients; also frequent sources of positive emotions were events which referred to the care workers' performance on tasks.
- To test one of the propositions of the Affective Events Theory (Weiss and Cropanzano, 1996), I examined whether these types of events would be associated with the workers' perceptions of the equivalent stable features of their work environment: although participants who reported that their work was challenging and interesting were also more likely on average to report positive events which involved task performance, those who gave higher ratings on a measure that implied opportunities for favourable social relationships with clients did not necessarily report more social interaction events of this type.
- Person-level antecedents accounted for a large proportion of the variance in the intensity of positive emotional experiences; the carers who reported the highest intensity positive emotions were those with high positive trait affectivity, a high need for affiliation and, to a lesser extent, a high need for achievement, a low need for dominance, and those who saw their job as a calling. Male workers, older workers and those who had been in the job for longer tended to report lower intensity positive emotions.
- Although the ten emotions could be shown to form one general factor of intensity, based on the patterns of both situational and individual antecedents, I have tentatively suggested differentiating between socially-oriented and task-oriented positive emotional experiences at work. The potential value of such a classification will be revisited later on in this thesis.

6. The Outcomes of Positive Emotions Experienced by Care Workers

In this chapter, I focus on the results (from the quantitative diary study) which deal with the *outcomes* of the positive emotions experienced on the job by care workers. I consider two different groups of outcomes associated with positive emotional experiences at work: (a) same-day outcomes, which are further divided into *immediate* changes in cognitive activity or behaviour, and effects on mood, cognitive activity and behaviour *for the rest of the day* (all these outcomes are based on the constructs that were elicited in the pilot study reported in Chapter 4); and (b) long-term outcomes, namely effects on work attitudes measured later on in time.

The structure of this chapter will be as follows: I will begin with an introduction recapitulating the need for real-time empirical work on the outcomes of positive emotions (as outlined in Chapters 1 and 2), reiterating the questions that I wished to address empirically. Then I will outline the procedure used to collect the data (which overlaps with the procedure described in Chapter 5 as they both refer to the same dataset, but I try to avoid redundancy as far as possible), listing the measures that refer to the variables dealt with in this chapter. Next I will explain the choice of data analysis techniques that were used on the data for positive emotions and their outcomes (the measures of positive emotions and the choice of analysis techniques used in this chapter differ from those that were used in Chapter 5). Finally I present the observed findings, and discuss their significance.

6.1. Introduction

Our current understanding of the consequences of workers' positive emotional experiences is limited in a number of respects, as I have highlighted elsewhere in this thesis. Firstly, as I outlined in Chapter 1, researchers interested in learning about people's pleasant experiences at work and their benefits have traditionally tended to focus on the rather vague and static construct of job satisfaction (Briner, 1999), which, as researchers now argue, is best thought of as an attitude and not an affective reaction (Weiss, 2002). This theoretical confusion has not helped attempts to isolate the effects of positive emotional experiences at work; as Weiss & Cropanzano (1996) point out, emotions and attitudes can have quite different consequences on cognition and behaviours (see also Eagly & Chaiken 1993; Weiss 2002).

Secondly, as outlined in Chapter 2, most attempts to study positive affect at work have tended to rely on retrospective survey measures of typical mood, which although convenient and easy to use, are increasingly believed to be relatively inaccurate (see Fisher, 2002; Kahneman, 1999), and are also of limited value in telling us about the proximal effects of positive emotional experiences at work. Most of the evidence supporting any causal effects of positive affect on changes in cognitions and behaviours tends to come from experimental settings (e.g. Baron, 1990). An emerging and promising new direction in this field has been the use of diary studies, which can provide more accurate and detailed real time assessments of emotional experiences and their effects (Bolger, Davis, & Rafaeli, 2003).

Thirdly, as I also pointed out in Chapter 1, most studies treat positive emotion as a global construct. It has recently been suggested that a more in-depth consideration of specific discrete emotions is warranted in our approaches to the study of workplace emotions (Brief & Weiss, 2002; Briner, 1999), since it is argued that specific discrete emotions are likely to constitute unique experiences, each with different consequences on cognitions and behaviour.

To address these issues therefore, in this chapter I aim to answer empirically a number of questions regarding the effects of positive emotions experienced at work: What short-term changes in cognition and behaviour are most often associated with the experience of positive emotions in care work? Does the intensity of emotional experience predict the likelihood of an outcome, and are these outcomes predicted differently by different types of positive emotions? Do positive emotional experiences influence work attitudes in the long-term? What is more influential, the *frequency* or the *intensity* of positive emotional experience? Which types of positive emotions are most predictive of long-term outcomes? I will now describe how I went about addressing each of these questions in turn.

6.1.1. Global vs. specific measures of positive emotions

As well as using a *global* measure of emotional experience (which is the unit of analysis in the vast majority of traditional and contemporary studies on this topic) I wanted to include a consideration of the effects of *specific* types of emotion. As outlined in Chapter 1, it has been argued that specific emotions may be predictive of different types of outcomes (e.g. Briner, 1999), and may therefore be more useful units of analysis than global measures. In this chapter I do not use individual emotions as units of analysis (as I did in the Chapter 5), but I do consider the effects of two different types of positive emotions. Based on my empirical work on the antecedents

of positive emotions, presented in Chapter 5, I decided to create two scales of specific positive emotions, one of socially-oriented positive emotions and one of task-oriented positive emotions, to be used as units of analysis alongside the global measures of positive emotional experience. These scales are described in the Method section below.

6.1.2. Same-day outcomes of positive emotional experiences: what short-term changes in cognition and behaviour are most often associated with the experience of positive emotions in care work? Are these outcomes predicted differently by different types of positive emotions?

There is a growing body of theoretical work which argues that positive emotions experienced by workers on the job may lead to short-term changes in cognition and behaviour that are desirable for both the individual worker and the organisation that employs them. For instance, Fredrickson (1998) has suggested that positive emotions broaden people's modes of thinking, making them prone to more flexible, creative and receptive patterns of thought. Weiss and Cropanzano (1996), on the other hand, have suggested that positive emotional reactions to events at work can provoke affect-driven behaviours, such as helping behaviours, and also help to gradually foster favourable attitudes towards the organisation and the job. However, strong empirical support for these propositions is only slowly beginning to emerge (e.g. Fisher, 2002). As mentioned elsewhere, our current knowledge tends to either rely on (a) retrospective survey reports of affect and their correlates, which, aside from being potentially inaccurate, make it hard to draw conclusions about causality in any observed relationships between affective experiences and accompanying changes in cognition or behaviour; or (b) experimental evidence from non-work settings. More recently, experience sampling methodologies, such as diary studies, have offered a promising way forward in this respect, as I argued in Chapter 2.

In Chapter 4, I presented the results of an exploratory pilot diary study that was conducted prior to the main wave of data collection, from which I derived a number of different categories for the various types of outcomes that care workers identified (a) immediately after a positive emotional experience, and (b) at the end of the day on which the positive emotional experience took place. In the main phase of the study, which I present here, I wanted to prompt the participants to identify the outcomes of their positive emotional experiences based on a checklist of the outcomes derived from the pilot study. To remind the reader, the elicited immediate outcome categories were: *increased motivation, increased self-esteem, increased self-efficacy, increased*

sense of meaning, desire to do more for client and insights into one's work. The end-of-the-day outcomes were: *long-lasting positive mood, smiling and thoughts about the event.* I was interested in seeing which of these outcomes would be the most commonly identified as a consequence of a positive emotional experience, and particularly in seeing whether the intensity of positive emotional experiences would influence the likelihood of an outcome being reported. I was also interested in examining whether these outcomes would be predicted differently by the different categories of positive emotional experience which I tentatively proposed in Chapter 5 (i.e. socially-oriented and task-oriented positive emotions).

6.1.3. Does the frequency and intensity of positive emotional experiences over time influence work attitudes? What is more influential, the frequency or the intensity of positive emotional experience? Which types of positive emotions are most predictive of work attitudes?

As discussed in Chapter 1, researchers interested in positive emotional experiences in work settings have often tended to confuse these with the construct of job satisfaction, which is now regarded to be an attitude and conceptually distinct from an emotional reaction (Weiss, 2002). Weiss and Cropanzano (1996) have offered to clarify this confusion by suggesting that positive emotional reactions to events at work can, over time, through their cumulative effect, shape attitudes towards the job. Thus, according to their Affective Events Theory (Weiss and Cropanzano, 1996), affect becomes a *cause* of attitudes, rather than being an equivalent or component construct.

In this study, I wanted to test Weiss and Cropanzano's (1996) proposition. The attitude constructs I decided to consider were organizational commitment and job satisfaction, probably the two most often studied work attitudes. I wanted to see whether the experience of positive emotions at work would predict care workers' commitment to their organization and their job satisfaction. The Affective Events Theory does not specify whether it is the *frequency* or the *intensity* of positive emotional experiences that is most important in shaping attitudes, so I decided to test the effects of both. Some researchers have argued that the frequency of emotional experience is at least as important a measure of emotions as is the intensity with which they are reported (see e.g. Diener & Larsen, 1993). On the other hand, some recent real-time studies have found the intensity of positive affect to be a predictor of work attitudes (e.g. Fisher, 2002), so I included two different measures of emotion intensity, as described in section 6.2.2 below. Besides these global measures of positive emotional experience, I also decided to include a consideration of two

specific positive emotion measures (socially-oriented and task-oriented positive emotions) as derived in Chapter 5.

In assessing the relationships between positive emotional experiences and work attitudes I thought it would be important to include a consideration of positive trait affectivity. Few studies have made the effort to measure emotional reactions at work over time, but many studies – particularly in the last 15 years – have measured people’s disposition to experience emotions, most often using the constructs of positive and negative affectivity (Watson, Clark & Tellegen, 1988). Since the early 1990s, researchers have begun to accept the possibility that workers’ attitudes towards their job might be, to some extent, determined by their personality (George, 1992). With regards to positive affectivity specifically, this dispositional construct has generally been found to be linked with both job satisfaction and organisational commitment (Cropanzano, James, & Konovsky, 1993; Fisher 2002). In this study, I wanted to see whether positive emotional experiences at work, as reactions to events, would predict work attitudes above and beyond the extent to which these work attitudes would be directly predicted by positive trait affectivity.

6.2. Method

6.2.1. Participants and procedure

Data were collected from the same sample and using the same diary protocol described in Chapter 5. As described in that chapter, positive emotions were measured in diary sheets which participants were instructed to take to work with them every day over a two-week period (see Appendix B).¹² Entries were made in response to a positive event at work. The same-day outcomes were also measured in these diaries; as participants rated the intensity of their positive emotional experiences, they were also asked to document whether the emotional experience had affected their thoughts or behaviours at that time, based on a checklist of possible outcomes derived from the pilot study described in Chapter 4. They were also asked to answer a final question at the end of the day reporting whether and how the positive emotional experience had affected their mood, thoughts and behaviours for the rest of the day, again based on a checklist of possible outcomes derived from the pilot study.

¹² The Affective Events Theory does not specify a preferred time period; my chosen time span of two weeks replicated that of Fisher (2002) and Grandey et al. (2002) and seemed reasonable because it would enough allow time for a number of events to unfold, without being so long that (i) the effects of any specific emotional episode would become diffused, and/or (ii) the respondents would become bored/fatigued and drop out of the study

The work attitudes, on the other hand, were measured in the questionnaires that were also sent out to the participants, and which they were asked to complete at the end of the two-week diary period (see Appendix C).

6.2.2. Measures¹³

Positive Emotions

As described in Chapter 5, the checklist of positive emotions on each diary sheet contained the terms *proud, a liking for someone, a liking for something, enjoying something, enthusiastic, pleased, content, optimistic, happy* and *rewarded*.

Participants were asked to rate on a sheet in their diaries the extent to which they had, during a given positive emotional episode, experienced each of the specific positive emotions on a scale of 1 (not at all) to 5 (a great deal).

A number of different measures were derived from the data collected on positive emotions. In the last chapter I presented data of the frequency and two different measures of the intensity with which positive emotional experiences – treated as a global construct – were reported, and I will refer to these more often in this chapter. The frequency measure was simply the number of diary entries (each representing a positive emotional experience) which were completed by each participant over the 2-week period. The first measure of intensity was the average intensity of all 10 positive emotions on each of these entries, aggregated across all entries for each participant (which is how intensity of emotional experience was computed in the studies by Fisher 2002, and Grandey et al, 2002). The reliability of this scale was $\alpha = .88$. The other measure of intensity was the average of the 3 most intensely-rated positive emotions on each entry, also aggregated across entries; this second measure was computed because I would argue that it is more meaningful and accurate than the former (i.e. than the average of *all* emotions). My reasoning is as follows: if, for instance, a respondent, having had an intense positive emotional experience, reported extremely high ratings of intensity for 2 specific positive emotions and extremely low for the remaining 8 within the scale, using the average score across *all* emotions might result in this being interpreted as a lower intensity positive emotional episode than one where a respondent experienced a more vague and less intense episode and rated all 10 emotions with moderate intensity ratings. The validity of such an

¹³ Some of the measures presented here are derived from existing established psychometric scales. Unfortunately, at the time of publication, there were no available official norm data for any of these scales.

interpretation would be, I believe, questionable. Therefore, for the analyses I decided to consider both measures of intensity, to compare how the two would be related to the outcome variables.

Besides these *global* measures of intensity, I also decided to differentiate between socially-oriented and task-oriented positive emotions, based on the findings presented in Chapter 5. A scale of each type of positive emotional experience was developed: items were included based on whether they had been positively associated with one of the other of social interactions (socially-oriented) or task performance (task-oriented).¹⁴ The socially-oriented positive emotions scale therefore comprised the items *a liking for someone, enjoying something, content, happy* and *rewarded*. This scale had an internal consistency of $\alpha = .85$. The task-related positive emotions scale was made up of the items *a liking for something, enthusiastic* and *optimistic*. The items in this scale had an internal consistency of $\alpha = .75$.¹⁵ For both scales, the unit of analysis was the average of *all* of the items within the scale.

Same-day Outcomes

Each of the 9 outcome categories derived from the pilot study were included in the diary sheets. Immediately following a positive emotional experience, respondents were asked whether they had experienced a number of effects on their cognitions and behaviour, from a list of 6 items, by checking the box next to the relevant outcome if appropriate. Each of these 6 immediate outcomes was represented by a statement that seemed to best encompass it (usually borrowing from the descriptions given by the care workers themselves in the qualitative study). *Increased motivation* was measured with the statement “it gave me extra motivation in my work”. *Increased self-esteem* was measured with the statement “it made me feel useful and important”. *Increased sense of meaning* was measured with the statement “it made me think my job is worthwhile”. *Increased self-efficacy* was measured with the statement “I felt more confident in my ability as a care assistant”. Desire to *help* was measured with the statement “it made me want to do more for my client”. *Insights into one’s work* was measured with the statement “it gave me an insight into (how to improve) my work”.

¹⁴ The only positive emotions from the original checklist which were not included in either scale were proud, which was found in Chapter 5 to overlap considerably between the two categories and pleased, which was not significantly associated with either category of events

¹⁵ Given the relatively lower numbers of items within each of these two scales (particularly the task-related emotions scale which only had 3 items), the problem of interpreting aggregations described above was deemed to be less of an issue than for the scale where *all* ten positive emotions were aggregated

The diary sheets also prompted participants to complete a question at the end of the day, asking whether the emotional experience had had any impact on their moods, thoughts or behaviour for the rest of the day. They were asked to check the box, if appropriate, next to 3 different statements. The statement “I felt good for the rest of the day” measured *long-lasting positive mood*. The statement “I was still smiling later on in the day thinking about what happened” was intended to provide a measure of *smiling* behaviour. Lastly, *thoughts about the event* was measured with the statement “I was still thinking about the event later in the day”. Participants were given the option, if applicable, to check a box which stated that the positive emotional experiences had had no particular effects on cognitions or behaviour, both at the time of the experience and later on in the day, and they were also given the opportunity to describe any other outcomes which had not been covered by the checklists.

Factor analyses were carried out on these outcome categories to test their structure and look for any patterns of responses. Although several factors emerged, all of which were found to have unacceptably low internal consistencies (all were below $\alpha = .60$) and were deemed unsuitable for use as scales. Considering the fact that most of the outcomes seemed to refer to existing and established psychological constructs (as I argued in Chapter 4), I decided to use each of them as an individual unit of analysis. The frequency with which each outcome was reported is presented in Table 6.1 below.

Long-term Outcomes: Attitudes

Job satisfaction was measured using a one-item scale; respondents were asked to rate on a scale of 1 (strongly disagree) to 7 (strongly agree) with the statement: “all in all, I’m satisfied with my job”. This one-item measure for job satisfaction has been previously validated in the literature (Wanous, Reichers & Hudy, 1997).

Organisational commitment was measured using Cook & Wall’s (1980) British Organisational Commitment Scale, minus one particular item which was deemed to be not applicable to workers in a public sector organization. Cook & Wall’s scale is the most commonly used measure of organizational commitment in the UK (Peccei & Guest, 1993). This measure had an alpha of .72.

6.3. Analyses

In the previous chapter I described the data in this study as being *multilevel*, since there are both micro-level data (at the level of the diary entry) and macro-level (at the level of the participants). In that chapter, most of the relationships I looked at involved micro-level propositions, so multilevel analyses were deemed the most appropriate method of analysis. In this chapter however, I was interested in testing both micro- and macro-level propositions, so I used both multilevel analyses and more traditional ‘one level’ regression analyses.

6.3.1. Non-linear multilevel analyses

The micro-level propositions I considered here were those which concerned the relationships between positive emotional reactions and same-day outcomes (the term micro-level refers to the fact that the data come from the individual diary entries). As I explained in Chapter 5, in a study such as this one where there is more than one level of data, multilevel analyses are the most accurate method for dealing with this type of data, because they take into account the statistical dependence which results from using several observations (micro-units) from the same participant (macro-unit). However, unlike in the analyses in Chapter 5 where the outcome variables were emotion intensity scores for which a normal distribution could be assumed, in this analysis the outcome variables are dichotomous variables (i.e. the presence or absence of an outcome). As Snijders and Bosker (1999) point out, it is unwise to apply linear multilevel regression methods to such variables. One reason for this is that the range of such variables is restricted, and the usual linear regression model might take its fitted value outside this allowed range; a meaningful model for outcomes that have only the values of 0 or 1 should not allow fitted values that are negative or greater than 1.¹⁶

With the aim of dealing with this particular type of multilevel data, an alternative non-linear multilevel regression technique has been devised, known as the *Bernoulli model*, named after the 17th century mathematician Jacob Bernoulli (who most famously lent his name to the Bernoulli *distribution*, which refers to a dichotomous distribution)¹⁷. Bernoulli models are more complicated than the usual linear multilevel regressions models and they take account of the non-normal distribution of dependent variables.

¹⁶ Another, more technical reason is described by Snijders and Bosker (1999, p. 207).

¹⁷ The Bernoulli model is also referred to as multilevel logistic regression.

Using Bernoulli models for this part of this analysis would allow me to estimate the variance in the scores of each of the same-day outcomes. Unlike in the previous multilevel analyses, I was not interested in building a model for each outcome, but rather to test the specific effects of the intensity of experience of the two specific positive emotion scales (socially-oriented emotions and task-oriented emotions). Nonetheless, using this kind of multilevel technique ensured that the statistical dependence between diary entries belonging to same individual participant would be taken into account. Since the statistical software package used up to now for multilevel analyses – LISREL 8.3 (Jöreskog & Sörbom, 2000) – does not contain the feature of Bernoulli models, another programme which does, HLM 5.04 (Raudenbush, Bryk, & Congdon, 2001) was used instead.

6.3.2. *Linear regression analyses*

I was also interested in examining the relationships between participants' positive emotional experiences, measured in the diaries, and their work attitudes measured later on in the questionnaires. Since in this case the outcome variables refer to macro-level data (there is only *one* value for each work attitude or behaviour *per participant*), multilevel analyses are inappropriate for examining this outcome data, and ordinary linear regressions will suffice. Therefore, the micro-level independent variables (positive emotion intensity ratings in the diary entries) needed to be aggregated to produce a macro-level score for each participant, as I described above in the Method section. As Snijders and Bosker (1999) point out, there is nothing wrong with aggregating micro-level data as long as the researcher is only interested in macro-level propositions, and bearing in mind that the reliability of an aggregated variable depends on the number of micro-level units in each macro-level unit¹⁸.

6.4. Results - Descriptives

6.4.1. *Positive Emotions*

Table 6.1 shows the means and standard deviations of the three different global measures of positive emotional experiences (the frequency, the average intensity across all ten emotions and the average of the 3 highest intensity emotions) – which I

¹⁸ To ensure that both of these aggregate measures of the intensity of positive emotional experience were sufficiently reliable, cases with less than 3 micro-level units were excluded from the final sample (see section 5.2.2 in Chapter 5).

already reported in Chapter 5 – and also the means and standard deviations of the two specific measures of positive emotional experience (socially-oriented and task-oriented positive emotions). It is interesting to note from this table that socially-oriented positive emotions received, on average, higher intensity ratings than their task-related counterparts (3.6 and 3.2 on a scale of 1-5, respectively). Not surprisingly, the second global measure of intensity (average of the 3 highest intensity emotions) had the highest mean value (4.2).

6.4.2. Same-day Outcomes

Table 6.2 lists the same-day outcomes and the average frequency with which these were reported by all participants. From this table we can see that the most commonly reported type of immediate outcome resulting from a positive emotional experience was an increased sense of purpose or meaning (reported on 409 occasions), followed by increased self-esteem (reported on 330 occasions). Only on 50 occasions were no immediate effects on cognition or behaviour reported. Although participants were encouraged to report other types of immediate outcomes if these were not covered by the checklist, no additional outcomes were reported. Table 6.2 also reveals that the most commonly reported type of outcomes reported at the end of the day was long-lasting positive mood (reported on 288 occasions). Only on 84 occasions did participants report that the positive emotional experience had no lasting effect or that this effect was lost throughout the day. Participants reported nine additional end-of-the-day outcomes, but none were reported often enough considered for any of the statistical analyses. An example of one of these outcomes is included in Table 6.2 below.

In Table 6.1, the scores for each of the same-day outcomes are aggregated to produce a single score for each participant (these scores indicated the average likelihood that the outcome would be reported on any given occasion by that participant, by using the following ratio: number of times outcome was reported / number of diary entries). Zero-order correlations between the participants' reporting of these outcomes (variables 1 to 9) and their positive emotional experiences (variables 12-16) are also reported in Table 6.1.

Table 6.1. Descriptive statistics & zero-order correlations of Same-day Outcomes (1-9), Long-term Outcomes (10-11) & Positive Emotion Measures (12-16)

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Increased motivation	0.47	0.50	–												
2. Desire to help	0.39	0.49	.45**	–											
3. Increased self-esteem	0.64	0.48	.39**	.28*	–										
4. Increased sense of meaning	0.80	0.40	.20	.19	.39**	–									
5. Insights into one's work	0.19	0.39	.49**	.29*	.19	.09	–								
6. Increased self-efficacy	0.41	0.49	.42**	.26*	.49**	.25*	.37**	–							
7. Long-lasting positive mood	0.56	0.50	.30**	.30**	.22	.37**	.19	.15	–						
8. Smiling	0.32	0.47	.34**	.30**	.23*	.28*	.37**	.24*	.32**	–					
9. Thoughts about the positive event	0.39	0.49	.34**	.29**	.36**	.35**	.44**	.31**	.33**	.57**	–				
10. Organisational commitment	24.1	5.5	.22	.16	.27*	.20	.35**	.21	.28*	.10	.37**	.72			
11. Job satisfaction	6.3	0.76	.35**	.19	.15	.06	.31**	.22	.35**	.29*	.36**	.55**	–		
12. Socially-oriented Positive Emotions	3.6	0.85	.45**	.33**	.51**	.27*	.26*	.39**	.30**	.24*	.41**	.32**	.26**	.85	
13. Task-oriented Positive Emotions	3.2	0.93	.46**	.33**	.42**	.22	.39**	.45**	.27*	.19	.37**	.25*	.25*	.88**	.75
14. Intensity of all Positive Emotions	3.5	0.86	.49**	.33**	.48**	.28*	.34**	.42**	.34**	.29*	.41**	.28*	.24*	.97**	.94**
15. 3 most intense Positive Emotions	4.2	0.75	.45**	.38**	.45**	.35**	.33**	.39**	.51**	.44**	.56**	.36**	.35**	.87**	.74**
16. Frequency of Positive Emotions	6.8	2.4	-.02	-.08	-.06	-.12	-.05	.03	-.01	-.10	-.13	.07	.17	-.03	-.01

Note. N = 77 * = p < .05, ** = p < .01 Alpha coefficients (where appropriate) are located in the diagonal.

Measures of same-day outcomes (1-9) and positive emotion intensities (12-15) and are aggregated at the level of the participant.

The mean figures for the same-day outcomes (1-9) represent the following ratio: total number of times outcome was reported / total number of diary entries (in the other words, the average likelihood that the outcome was reported on any given occasion).

Examining this table we can see significant positive associations between all of these outcomes and almost all of the measures of positive emotion intensity (global and specific); in other words, those participants who on average reported more intense emotions were, on average, more likely to report more outcomes of those emotions. However, since the idea that the intensities of positive emotional experiences might be linked to the reporting of outcomes is clearly a micro-level proposition (as the number of observations for both variables is 514), it is inappropriate and inaccurate to rely on aggregated macro-level scores to test it; the multilevel analyses are reported in section 6.5 below.

6.4.3. Long-term Outcomes

Table 6.1 also shows the means and standard deviations of the work attitude variables that were measured for each participant: organisational commitment and job satisfaction. From this table we can see the organisational commitment measure showed a good internal consistency (.75) (job satisfaction, on the other hand, was measured with a 1-item measure, so this type of reliability coefficient does not apply).

Organisational commitment was positively correlated with job satisfaction ($r = .55$, $p < .01$). There were a number of observed significant correlations between these outcomes and the different measures of positive emotional experience. For instance, organisational commitment was positively associated with both global measures of intensity and with the intensity of both socially-oriented and task-oriented emotions. Job satisfaction was also positively associated with all four of these measures of positive emotional experience. Those participants who on average reported more intense positive emotions also reported being more committed to their organisations and more satisfied with their jobs. However, although these significant zero-order correlations are interesting, they do not control for the possible influence of third variables, such as trait positive affectivity. Also, in the case of the specific emotion measures, it is not clear which of the two is the more influential on the two outcomes; it would seem pertinent to try to replicate these effects whilst considering both types of positive emotion in the same analysis. Linear regression analyses which take these issues into account are reported below in section 6.6.

Neither organisational commitment nor job satisfaction was significantly related to the frequency of positive emotional experiences.

Table 6.2. Frequencies of same-day outcomes

Time of reporting	Same-day outcome	Total no. of times that outcome type was reported
Immediately following positive emotion	Increased sense of meaning	409
	Increased self-esteem	330
	Increased motivation	214
	Increased self-efficacy	211
	Desire to help	199
	Insights into one's work	99
	No effect	50
At the end of the day	Long-lasting positive mood	288
	Thoughts about the event	200
	Smiling	165
	Others (e.g. "it restored my faith in human beings")	9
	No effect or effect lost	84

6.5. Results – Non-linear Multilevel Analyses

As reported in Table 6.1, each of the same-day outcomes were positively associated with almost all of the measures of positive emotion intensity, global and specific, such that those participants who on average reported more intense emotions were, on average, more likely to report more outcomes of those emotions. As I pointed out above, since both these types of variables are at the diary entry level (micro-level), multilevel analyses can produce more accurate estimates of these relationships.

Since the link between the aggregate measures of the same-day outcomes and the *global* measures of positive emotion intensity is so clear (all relationships were significant, and many of them were highly significant), rather than run a multilevel model for each outcome using the global measures I proceeded directly to testing a model for each outcome containing instead both of the *specific* measures of emotion intensity (socially-oriented and task-oriented), to determine which type of emotional experience was most influential in the causation of an outcome, using Bernoulli models. The results are displayed in Table 6.3 (for the immediate outcomes) and Table 6.4 (for the end-of-day outcomes) below. Besides the regression coefficients, in

these tables I also present a measure of the intra-class correlation for each outcome¹⁹. As I explained in Chapter 5, the intra-class correlation is a measure of the degree of dependency of the micro-units belonging to the same macro-unit, or in other words, the degree of resemblance between diary entries belonging to same individual participant.

As we can see from Table 6.3, socially-oriented and task-oriented positive emotions had quite different effects on each of the immediate outcomes. Whilst more intense ratings of task-oriented emotions were significantly and positively associated with boosts in job motivation and, most of all, insights into the job, more intense ratings of socially-oriented emotions were instead related to boosts in self-esteem, sense of purpose or meaning and the desire to do more for the client. Socially-oriented emotions also sometimes had the opposite effect to their task-related counterparts; for instance, they were *negatively* associated with the likelihood of having insights into the job. Only one variable, increased self-efficacy, was positively associated with the intensity of both types of positive emotional experience. The intra-class correlation coefficients suggest that the variance in outcome variables was mainly determined by micro-level variation (such as might be determined by the different types of positive emotional experiences) rather than by macro-level variation (variation between different individuals). For example, reporting increased motivation in response to an emotional experience was only determined to a certain extent (25%) by individual differences between the participants; most of the variance (75%) was accounted for by the situation itself.

Table 6.3. The effects of socially-oriented and task-oriented positive emotions on immediate outcomes

DVs: Immediate Outcomes (n=514)	Increased Motivation		Desire to help		Increased self-esteem		Increased sense of meaning		Insight into one's work		Increased self-efficacy	
	â	SE	â	SE	â	SE	â	SE	â	SE	â	SE
IV: Positive Emotion Type:												
Socially-oriented	.22	.16	.30Ø	.18	.67***	.16	.50**	.16	-.49**	.17	.30*	.14
Task-oriented	.52***	.14	.06	.12	.03	.14	-.10	.14	.90***	.15	.26*	.12
Intra-class correlation	.25		.24		.31		.15		.18		.29	

Note: Standardised beta regression coefficients. Ø = p < .10; * = p < .05; ** = p < .01; *** = p < .001

¹⁹ It must be noted, however, that these intra-class correlation coefficients are only approximate measures, which I report to so as to give the reader a rough estimate of how much variance in the outcome measures was accounted for by individual differences. Technically, these measures are not meaningful for non-normal variables.

Table 6.4 also reveals somewhat different effects for socially-oriented and task-oriented positive emotions on the outcomes reported at the end of the day. More intense ratings of socially-oriented emotions were positively and significantly associated with *all* of these outcomes: long-lasting positive mood, smiling (as a behavioural marker of positive mood), and continued thoughts about the positive event. The intensity of task-related positive emotions was unrelated to all three outcomes. Here also, the intra-class correlation coefficients suggest that the reporting of the outcome variables was much more likely to be determined by the situation than by individual differences between participants.

Table 6.4. The effects of socially-oriented and task-oriented positive emotions on end-of-day outcomes

DVs: End of day Outcomes (n=514)	Long-lasting positive mood		Smiling		Thoughts about the positive event	
	\hat{a}	SE	\hat{a}	SE	\hat{a}	SE
IV: Positive						
Emotion Type:						
Socially-oriented	.44**	.15	.65**	.18	.29Ø	.17
Task-oriented	.02	.13	-.25	.15	-.06	.15
Intra-class correlation	.20		.14		.26	

Note: Standardised beta regression coefficients.

Ø = $p < .10$; * = $p < .05$; ** = $p < .01$; *** = $p < .001$

6.6. Results – Linear Regression Analyses

As reported in Table 6.1, there were a number of observed significant zero-order correlations between the different measures of positive emotional experience and work attitudes. However, these correlations do not account for the possible effects of third variables; I was particularly interested in seeing whether the data for positive emotional experiences at work would explain any variance in these outcomes above and beyond the effect of trait positive affectivity. I was also interested in seeing which of the two different types of positive emotions (socially-oriented and task-oriented) would be most predictive of the long-term outcomes, when analysed together. Therefore, a hierarchical linear regression was carried out for each outcome using each of the measures of positive emotional experience: both global measures of

intensity (the average intensity across all ten emotions and the average of the 3 highest intensity emotions) and both specific measures of intensity (socially-oriented and task-oriented positive emotions). In each case, stable positive affectivity was included as predictor in the first step, and the measure of positive emotional experiences in the second step. The results of these regressions are displayed in Tables 6.5, 6.6, 6.7, 6.8 and 6.9 below.

6.6.1. *The effect of the frequency of positive emotions*

Since the zero-order correlations presented in revealed no significant associations between the frequency with which positive emotions were reported and either of the two work attitudes, no regression was carried out for this measure.

6.6.2. *The effect of the intensity of positive emotions*

Table 6.5 reveals that after controlling for the effect of positive affectivity, the measure of the average intensity of all positive emotions was only marginally positively associated with organisational commitment ($\hat{a} = .22$, $p < .10$), but was not associated with job satisfaction. Table 6.6, on the other hand, reveals that even after taking into account the possible effects of positive affectivity, the average of the 3 most intense positive emotions was significantly predictive of higher scores of both organisational commitment ($\hat{a} = .29$, $p < .05$) and job satisfaction ($\hat{a} = .24$, $p < .05$). Thus, of the two different global measures of positive emotion intensity, the average of the 3 most intense positive emotions was found to be more predictive of long-term work attitudes than the average of all 10 positive emotions.

Table 6.5. The effect of the average intensity of all positive emotions on long-term outcomes, controlling for positive affectivity

DV: Long-term Outcomes (n=77)	Organisational Commitment				Job Satisfaction			
	Ad R ²	R ² Δ	F Δ	â	Ad R ²	R ² Δ	F Δ	â
Step 1								
Positive affectivity	.08	.09	7.90	.31**	.14	.15	12.82	.38**
Step 2								
Intensity of all positive emotions	.11	.04	3.43	.22Ø	.14	.01	1.12	.12

Note: Ad R² = Adjusted R² R² Δ = R² change F Δ = F change â = beta regression coefficient
Ø = $p < .10$; * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Table 6.6. The effect of the average of the 3 most intense positive emotions on long-term outcomes, controlling for positive affectivity

DVs: Long-term Outcomes (n=77)	Organisational Commitment				Job Satisfaction			
	Ad R ²	R ² Δ	F Δ	â	Ad R ²	R ² Δ	F Δ	â
Step 1								
Positive affectivity	.08	.10	7.90	.31**	.14	.15	12.82	.38**
Step 2								
3 most intense positive emotions	.14	.07	6.12	.28*	.17	.05	4.29	.24*

Note: Ad R² = Adjusted R² R² Δ = R² change F Δ = F change â = beta regression coefficient
 Ø = p < .10; * = p < .05; ** = p < .01; *** = p < .001

6.6.3. The effect of socially-oriented and task-oriented positive emotions

As we can see from Table 6.7, the intensity of socially-oriented positive emotions was significantly predictive of organisational commitment (â = .24, p < .05) after controlling for the effect of positive affectivity. It was unrelated, however, to job satisfaction. Table 6.8 reveals that task-related positive emotions were not significantly related to either of the attitude outcomes, after controlling for the effect of positive affectivity. In both cases, positive affectivity remained significantly associated with organisational commitment and job satisfaction.

Table 6.7. The effect of the average intensity of socially-oriented positive emotions on long-term outcomes, controlling for positive affectivity

DVs: Long-term Outcomes (n=77)	Organisational Commitment				Job Satisfaction			
	Ad R ²	R ² Δ	F Δ	â	Ad R ²	R ² Δ	F Δ	â
Step 1								
Positive affectivity	.08	.10	7.90	.31**	.14	.15	12.82	.38**
Step 2								
Socially-oriented positive emotions	.12	.05	4.21	.24*	.14	.01	1.22	.13

Note: Ad R² = Adjusted R² R² Δ = R² change F Δ = F change â = beta regression coefficient
 Ø = p < .10; * = p < .05; ** = p < .01; *** = p < .001

Table 6.8. The effect of the average intensity of task-oriented positive emotions on long-term outcomes, controlling for positive affectivity

DV: Long-term Outcomes (n=77)	Organisational Commitment				Job Satisfaction			
	Ad R ²	R ² Δ	F Δ	â	Ad R ²	R ² Δ	F Δ	â
Step 1								
Positive affectivity	.08	.10	7.90	.31**	.14	.15	12.82	.38**
Step 2								
Task-oriented positive emotions	.09	.02	1.82	.16	.14	.02	1.29	.13

Note: Ad R² = Adjusted R² R² Δ = R² change F Δ = F change â = beta regression coefficient
Ø = p < .10; * = p < .05; ** = p < .01; *** = p < .001

Both types of positive emotions were then entered into the models at the same time as predictors, still controlling for the effect of positive affectivity. As we can see from Table 6.9, the relationship between socially-oriented positive emotions and organisational commitment remained only marginally significant (â = .42, p < .10). No other significant associations between the two measures of positive emotion and work attitudes were observed.

Table 6.9. The effect of the average intensities of both socially-oriented and task-oriented positive emotions on long-term outcomes, controlling for positive affectivity

DV: Long-term Outcomes (n=77)	Organisational Commitment				Job Satisfaction			
	Ad R ²	R ² Δ	F Δ	â	Ad R ²	R ² Δ	F Δ	â
Step 1								
Positive affectivity	.08	.10	7.90*	.31*	.14	.15	12.82*	.38*
Step 2								
Socially-oriented positive emotions	.12	.06	2.46	.42Ø	.13	.02	.67	.06
Task-oriented positive emotions	.12	.06	2.46	-.20	.13	.02	.67	.09

Note: Ad R² = Adjusted R² R² Δ = R² change F Δ = F change â = beta regression coefficient
Ø = p < .10; * = p < .05; ** = p < .01; *** = p < .001

6.7. Discussion

A number of interesting patterns emerged from the various analyses: in this section I will begin by discussing the relationships between positive emotional experiences and the same-day outcomes of these experiences, as measured in the diary sheets, before moving on to discuss the impact of the positive emotional experiences on the work attitudes that were measured in the questionnaires, post-diary study. Throughout, I consider the importance of the particular measures that were chosen to quantify positive emotional experience.

As in the previous chapter, I will use this discussion primarily as a way of shaping up the conclusions of the findings that were observed here; the actual implications of these findings – in terms of progressing what we already know about the outcomes of positive emotions at work – I will deal with in more depth in Chapters 8 and 9.

6.7.1. Same-day outcomes of positive emotional experiences: what short-term changes in cognition and behaviour are most often associated with the experience of positive emotions?

Recent theoretical work suggests that positive emotions experienced by workers on the job may produce short-term changes in cognition and behaviour which may be seen as desirable for the individual and the organisation (Fredrickson, 2000b; Weiss & Cropanzano, 1996). The findings of this study reveal that on the vast majority of occasions, workers were able to identify such types of changes immediately following an emotional experience; in less than 10% of the diary entries did participants report that the emotional experience did not affect their thoughts or behaviours in any way. The most commonly elicited immediate consequences of positive emotions were an increased sense of meaning, followed by increased self-esteem. It is interesting to note that although in the pilot study (from where these outcomes were derived) insights into one's job were the most commonly elicited immediate outcome, here in the main part of the study they were the least often elicited (only on 99 occasions). This finding may serve to highlight one of the limitations associated with the approach adopted here: in distilling the descriptions given by workers in the pilot study into discrete categories, a lot of the meaning of these descriptions was lost. For instance, although insights into the job might be a useful category title for encompassing descriptions such as "I realised that little things done from day to day are just as important as the big issues", when presented as an option in the checklist

used in the quantitative diaries it may have been hard to interpret by some of the care workers. I discuss limitations such as this one again in Appendix E.

The findings also reveal that workers were often able to identify effects of a positive emotional experience on their mood, thoughts and behaviour for the rest of the day on which they experienced it. Only in 16% of the diary entries were there no reported effects of this kind. The most commonly reported end-of-the-day consequence was a prolonged positive mood throughout the day.

6.7.2. Are these same-day outcomes predicted differently by different types of positive emotional experience?

The zero-order correlations displayed in Table 6.1 indicate that the likelihood that participants would report an outcome was highly correlated with the intensity of the emotional experience which preceded it; this finding applied to all immediate and end-of-the-day outcomes. A closer look at these relationships revealed that the outcomes were not predicted equally by the intensities of the two scales of positive emotions that were adopted i.e. socially-oriented and task-oriented positive emotions (see Tables 6.3 and 6.4).

The intra-class correlation coefficients in Tables 6.3 and 6.4 suggest that the reporting of all the outcome variables was much more likely to be determined by the situation (for example, the nature of the emotional experience) rather than by individual differences between participants. This stands in contrast with the multilevel analyses of the positive emotions reported in Chapter 5, where variance in the emotion scores was found to be almost equally attributable to situational and person-level variation. What this means is that on each occasion, it was more likely to be the nature of the situation that predicted whether or not an outcome was reported. It was not simply a case, therefore, of certain individuals being more likely than others to report certain outcomes (such as long-lasting positive mood) in their diary entries. This effect lends weight to the possibility that the experience of the emotional event itself determined the likelihood that they were reported. I will return to this point in Chapter 8.

With regards to the different patterns of associations for the two types of positive emotional experiences, these are illustrated in Figures 6.1 and 6.2 below.

Of the various same-day outcomes, socially-oriented emotions predicted boosts in self-esteem, a sense of meaning and self-efficacy, and they prompted helping behaviours. They were also predictive of longer-lasting effects on positive mood,

positive thoughts and smiling (each of which can arguably be considered a marker of positive affective well-being at work).

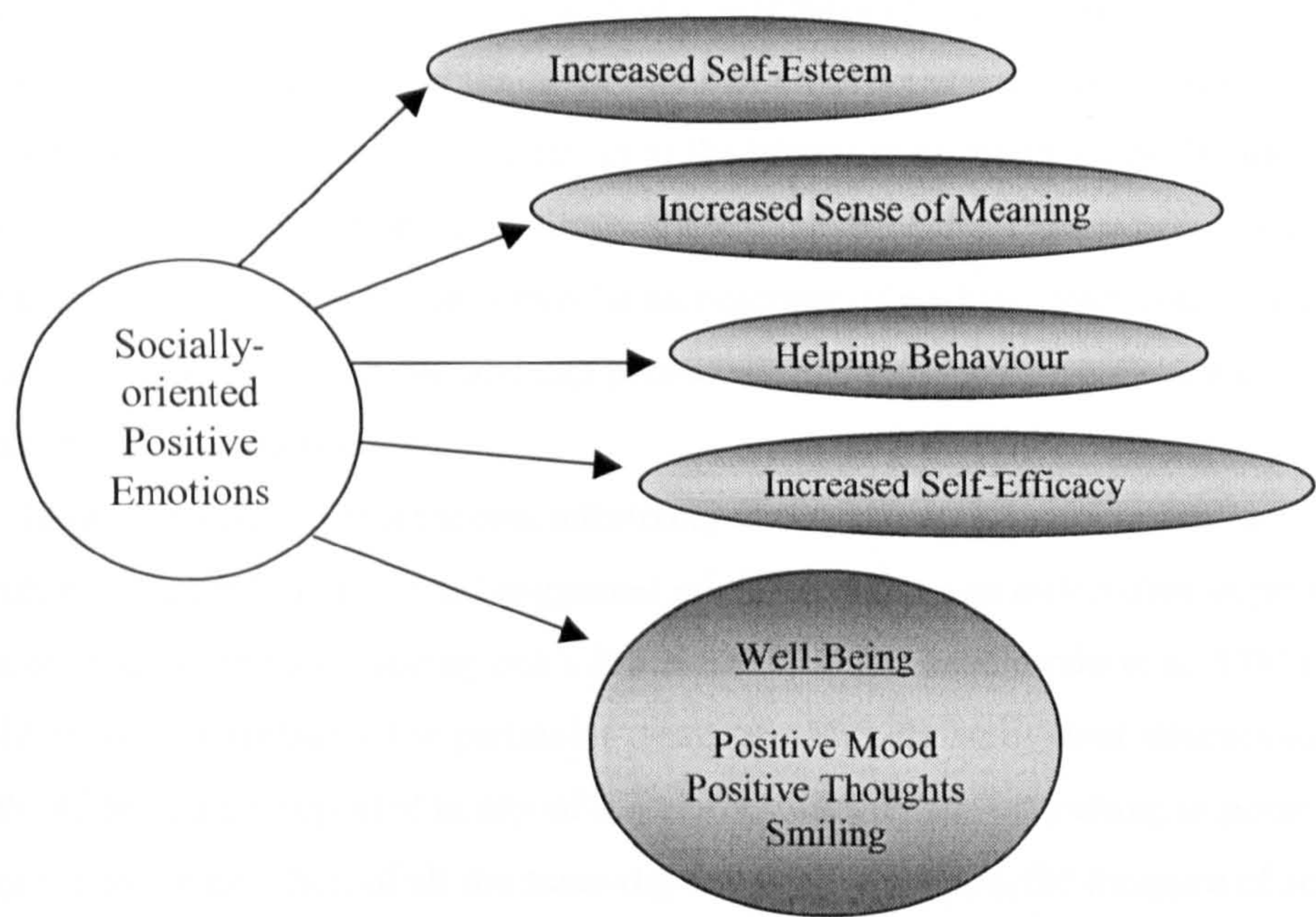


Figure 6.1. The Short-Term Outcomes of Socially-Oriented Positive Emotions

Task-oriented emotions, on the other hand, predicted boosts in work motivation, and they were very strongly predictive of the reporting of insights into one’s work. In this case, there was stark differential effect of the two types of emotion, since this outcome variable was also in turn *negatively* predicted by the intensity of socially-oriented emotions. The only outcome variable which was predicted by both tasks- and socially-oriented positive emotions was self-efficacy.

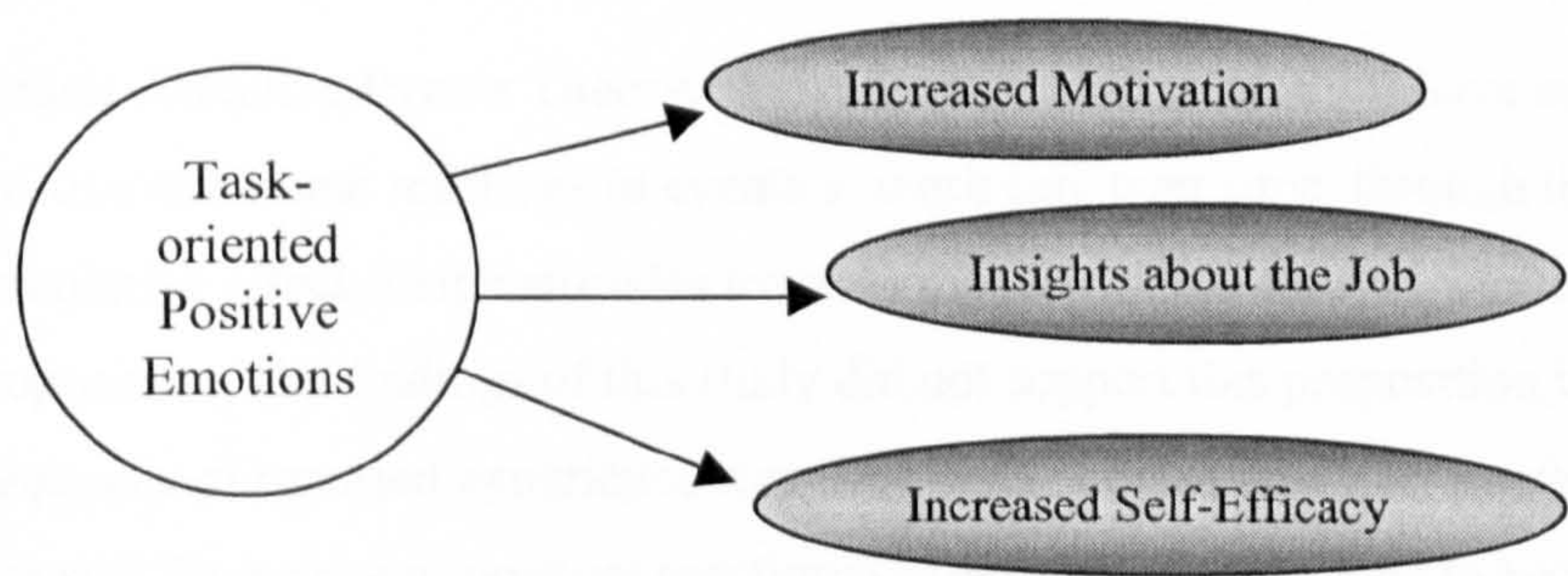


Figure 6.2. The Short-Term Outcomes of Task-Oriented Positive Emotions

I will discuss each of these observed relationships in detail in Chapters 8 and 9. Here, however, I would like to briefly reflect on *one* of the observed relationships, that between positive emotions and the increased sense of meaning, since I believe that it may relate to another of the variables that was measured in the quantitative diary study. As I described in Chapter 4, the sense of meaning is a psychological construct which has received increasing attention in the literature in recent years (Baumeister & Vohs, 2002) and, based on the findings of the qualitative diary study presented in that chapter, I have suggested that it may be an outcome of positive emotional experiences – a suggestion for which the findings presented in this chapter provide some corroborative evidence.

However, this construct seems intuitively to overlap with another construct I dealt with in Chapter 5, and which I suggested might be seen as an *antecedent* of positive emotional experiences: seeing one's job as a calling (Wrzesniewski et al. 1997), which seems to relate to the particular meaning which the individual attaches to their job. Although not reported in any of the tables, it is perhaps interesting to point out here to the reader that, of all the same-day outcome variables, the measure of sense of meaning was by far the most closely associated with the measure of seeing one's job as a calling as measured in the questionnaires ($r = .38, p < .001$), thus illustrating the similarity of these constructs. In other words, these two constructs may overlap to some extent, and the findings presented here suggest that these overlapping constructs might be potentially seen as both a cause *and* an effect of positive emotional experiences. This raises an important issue which I will discuss in Chapter 8 of this thesis.

6.7.3. Do positive emotional experiences influence longer-term work attitudes? What is more influential, the frequency or the intensity of positive emotional experience?

In their Affective Events Theory, Weiss and Cropanzano (1996) have suggested that positive emotional reactions to events at work can, over time, through their cumulative effect, shape attitudes towards the job. In this study, I wanted to test this proposition. The findings of this study did not support this proposition when *frequency* of reported experience was used as the unit of analysis; however, the reported *intensities* of positive emotional experiences *were* found to be associated to job attitudes measured later in time (see Figure 6.3); the strength of these associations depended on the measures of intensity which were used.

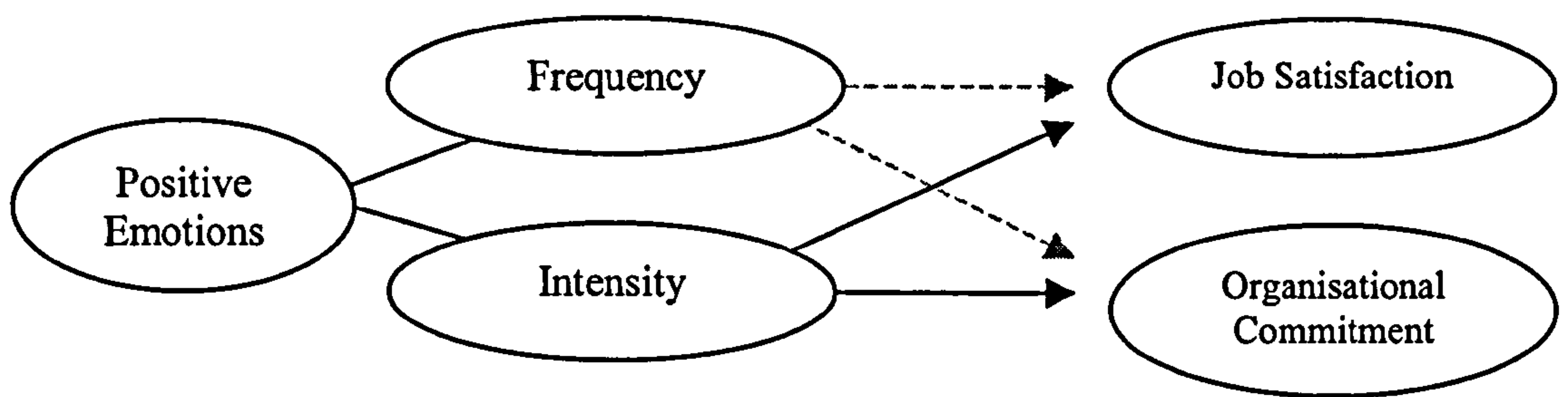


Figure 6.3. Positive Emotional Experiences as Predictors of Attitudes
Non-significant relationships are shaded.

As we can see from the zero-order correlations in Table 6.1, the frequency with which positive emotions were reported did not significantly predict *any* work attitudes. This finding was somewhat unexpected; although Weiss & Cropanzano (1996) did not specify whether it would be the frequency or intensity of emotional experience which shaped the formation of attitudes, one would intuitively expect both factors to be important. Furthermore, as mentioned above, some researchers have argued that the frequency of emotional experience is at least as important a measure of emotions as is the intensity with which they are reported (see e.g. Diener & Larsen, 1993).

There are at least two possible types of explanation to account for the lack of any observed effects. First, the lack of observed significant relationships may actually reflect a true diminished importance of the frequency of emotional experience. Perhaps the frequency with which pleasant feelings are experienced at work does not really “matter” in the long run unless these experiences are intense. To test whether there might be an interactive effect of frequency and intensity, post-hoc analyses were run with a combined measure of frequency and intensity (formed by multiplying together the scores on these variables for each participant), but no significant relationships were found. Thus, if the frequency measure is deemed reliable and valid, it seems that frequency of emotional experiences is far less important than the intensity of these experiences in determining the formation of attitudes. I will return to this discussion in Chapter 9.

There is, however, an alternative kind of explanation which would involve questioning the validity of the frequency measure. For instance, there may have been a dispositional effect on the likelihood of reporting emotional events. The tables of correlations in this chapter and in the last reveal that only *one* variable was associated – albeit weakly – to the frequency of emotional experience, namely *positive affectivity* ($r = .22, p < .10$, see Table 5.2 in Chapter 5). Perhaps there was an effect of positive affectivity on the likelihood of reporting, such that dispositionally less happy workers

tended only to report positive emotions if these were relatively intense and deemed worthy of taking the time to complete a diary sheet, whereas those dispositionally happier workers routinely completed more diary entries regardless of their intensity. Consistent with this hypothesis, the frequency and intensity with which positive emotions were reported were actually negatively and not positively correlated, albeit non-significantly (see Chapter 5). This might help explain the lack observed predictive effects for frequency of reported emotions, although it is only a speculative explanation.

The *intensity* of positive emotional experience, on the other hand, proved to be a much better predictor of attitudes, as we can see from the zero-order correlations in Table 6.1 and the results of the regression analyses reported in Table 6.5 and 6.6. Of the two intensity measures that were used, the second one – which used the average of the 3 most intensely-rated emotions – was found to be particularly predictive, as it remained positively associated with both organisational commitment and job satisfaction, even after controlling for the effect of trait positive affectivity. In the next chapter of this thesis, I will explore the issue of causality in the relationship between positive emotions and work attitudes.

I would argue that my decision to run the analyses with this alternative measure (the average of the 3 most intense-rated emotions) was justified. Firstly, there is the accuracy issue described above in section 6.2.2: I believe that using an average global score of a large number of positive emotion terms (as used by Fisher, 2002, and Grandey et al, 2002) is problematic because, as I described above, it is questionable to assume that a particular emotional experience where 2 specific emotion terms (say, for instance, proud and rewarded) received maximum intensity ratings and the other 8 received minimum intensity ratings should be regarded as less intense than a more generalised, vague emotional experience where all 10 emotion terms were given moderate intensity ratings. The fact that, in any given emotional experience, some emotion terms are given low ratings does not necessarily say anything about the intensity of the overall experience; it may have been a very intense experience, the low ratings may simply mean that that particular subjective experience was not characterised by those descriptive terms. I think a measure that includes only most intensely-rated items (I decided to use the 3 most intense for each occasion) is far more representative of the actual intensity of the experience. I also believe that the results speak for themselves: despite the fact that the standard deviation for my measure was lower than for the measure of the average intensity of all 10 emotions, it seems that the variation in scores was more meaningful, since the observed effects predicted by Weiss & Cropanzano (1996) were much stronger.

6.7.4. Which types of positive emotions are most predictive of long-term outcomes?

Socially-oriented positive emotions were found to be more predictive of organisational commitment than their task-related counterparts – after controlling for the effect of positive affectivity and analysing the two emotion categories at the same time – as reported in Tables 6.7, 6.8 and 6.9, although neither of the specific types of emotion was related to job satisfaction. As I pointed out above, socially-oriented positive emotions were more likely to have longer-lasting effects on mood and well-being throughout the day (in section 9.3.2 of Chapter 9 I propose a number of explanations for this finding), and one could argue that this relationship might have mediated the effect of socially-oriented emotions on longer-term work attitudes, and help explain why task-oriented emotions did not have the same effect. I will discuss this possible mediation effect in Chapters 7 and 9.

In any case, it is worth pointing out that the effect of positive emotion intensity on longer-term work attitudes was found to most consistent (the association with *both* work attitudes was significant) when one of the global measures – the one which used the average of the 3 most intensely-rated emotions – rather than either of the specific measures was used as the unit of analysis. It seems that, as much as socially-oriented emotions may be more influential than task-oriented emotions, what really matters is the overall intensity of the experience, measured using items from both scales. In other words, the classification I proposed in Chapter 5 may help to pick out subtle differences in the short-term consequences of positive emotional experience, but for assessing its longer-term impact perhaps the differences in types of emotional experience are too subtle for any effects to be observed, and the overall intensity of experience may be a more appropriate level of analysis. Given the time lag between the measurement of emotional experiences and attitudes, these associations are likely to be weaker (since many other factors, such as intervening negative emotional experiences, may also account for much of the variation in the outcome variables), and as such only the measure of overall intensity was precise enough to produce significant associations.

Therefore, in the next chapter where I now explore the relationship between positive emotional experiences at work and work attitudes, I will adopt the global average measure of intensity (of the 3 most intensely-rated emotions from the full scale), rather than either of the specific scales.

6.8. Interim Conclusions

In this chapter I looked at the short- and longer-term outcomes of the positive emotional experiences of care workers, measured in a quantitative diary study over two weeks. The main findings from the empirical work that was presented here are the following:

- Care workers tended to report changes in cognition and behaviour following a positive emotional experience at work: the most commonly reported immediate outcome was an increased sense of meaning and the outcome most commonly reported at the end of the day was a long-lasting positive mood.
- The more intense the positive emotional experience, the more likely the care workers were to report associated changes in cognition and behaviour, both immediately after the experience and at the end of the day.
- Socially-oriented and task-oriented positive emotions each predicted quite different outcomes: whereas task-oriented emotions predicted, in particular, short-term outcomes such as insights into the job and momentary boosts in job motivation, socially-oriented emotions were predictive of helping behaviours, boosts in self-esteem, a sense of meaning and improved well-being throughout the day; both types of positive emotions were associated with increased self-efficacy.
- Although the frequency of positive emotional experiences was not predictive of any of the work attitudes that were measured at the end of the two week study, the average *intensity* of these experiences was predictive of both organisational commitment and job satisfaction, even after controlling for the effect of positive affectivity; I have argued that the most meaningful measure of positive emotion intensity is one which uses the average of the 3 most intensely-rated emotions, rather than the average of all emotions.
- Socially-oriented emotions were more predictive of long-term organisational commitment than their task-oriented counterparts; however, individually these specific measures of emotions were less predictive of work attitudes than a global measure of positive emotion intensity.

7. The Role of Positive Emotional Experiences at Work – Testing the Affective Events Theory

In this chapter, I move beyond looking individually at the antecedents and outcomes of positive emotions at work and begin to examine the precise role of these emotions, looking at them in the context of some of these antecedents and outcomes simultaneously. I adopt the framework of the Affective Events Theory (Weiss & Cropanzano, 1996), with a particular view to examining the relationship between positive emotions and work attitudes. Firstly, I aim to demonstrate that although there may be shared variance between workers' *momentary* positive feelings as reactions to daily events at work (positive emotions) and how they feel about their work *in general* (work attitudes), these variables essentially represent two distinct types of construct. The implication of this finding, I will point out, is that it is inappropriate for researchers to continue using these terms interchangeably, as they have done traditionally (see Weiss, 2002). Secondly, I will address the issue of causality in the relationship between positive emotions and work attitudes. I will argue that it is fairly reasonably to assert, from the findings presented this thesis, that positive emotional experiences are likely to influence work attitudes rather than vice versa.

The structure of this chapter will be as follows: I will begin with an introduction, reiterating the main ideas behind Weiss and Cropanzano's (1996) Affective Events Theory and their significance, and outlining the propositions of this theory that are most in need of testing. Then I dedicate a section to addressing each of the two research questions I outlined in the previous paragraph, using structural models to test each set of propositions, and stating hypotheses for expected relationships where appropriate.

As a note to the reader, I should point out that since the data I use to test each of the propositions refers to the same data presented in the last couple of chapters, I will not describe the sample, procedure and measures again (to see these again refer to the Method sections of Chapters 5 and 6); in this chapter I only introduce one new variable (described below). Given that some of the antecedents and outcomes of emotional experiences are – for the first time in this thesis – analysed simultaneously, I include a new table of descriptive statistics and correlations (see Table 7.1 below).

7.1. Introduction

As I described in Chapter 1, the Affective Events Theory (Weiss & Cropanzano, 1996) was put forth in order to solve an apparent flaw in the way that affective experience at work has traditionally been conceptualised and measured. With regards to positive affective experience in particular, it has traditionally been assumed that *job satisfaction* could provide a useful (and easy to obtain) measure of chronic positive affect at work, which would in turn predict behaviours on the job such as performance, turnover, absence, etc. However, decades of studies have shown that this construct is only weakly related to such outcomes (see e.g. Iaffaldano & Muchinsky, 1985; Podsakoff & Williams, 1986; Vroom, 1964), leading some to suggest that job satisfaction is not valid as an equivalent construct for positive affective experience ((Briner, 1999; Lucas & Diener, 2003; Weiss, 2002), and that it is best thought of as an *attitude* which may be influenced by positive (and indeed negative) affective experiences at work, but which is at the same time conceptually distinct from them.

Weiss and Cropanzano's (1996) Affective Events Theory was a much welcomed development when it was first proposed, since it provided a theoretical framework to help clarify some of the conceptual confusion surrounding emotions and attitudes at work. The Affective Events Theory (see Figure 7.1) is based on the assumption that emotions and attitudes constitute separate, albeit related sets of constructs. The central tenet of the Affective Events Theory is that momentary affective or emotional *states* play a key mediating role between the work environment, an individual's *trait* affect, and his or her work attitudes and behaviours.

To recapitulate the description I provided in Chapter 1, the basic propositions of the model are as follows. Work environments can influence work attitudes in two ways: firstly, they may impact on attitudes through a process of cognitive comparison, a relationship which is well-documented in the literature (e.g. Hackman & Oldham, 1980; Oldham, Kulik, Ambrose & Stepina, 1986); secondly, the Affective Events Theory's novel addition is to suggest that work environments may *also* have a mediated effect on attitudes through the cumulative experience of *emotions at work*.

According to the theory, stable work environment features act by predisposing the more or less frequent occurrence of particular types of real-time events in the workplace, and these discrete events are the proximal causes of momentary positive or negative emotions, a relationship which is moderated by individual differences in affective traits or dispositions (this is a proposition I have already examined in Chapter 6).

Finally, the Affective Events Theory suggests that workplace emotions and work attitudes differ in that they give rise to qualitatively different types of behaviours. They grouped these behaviours into two categories: affect-driven behaviours and judgement-driven behaviours. Affect-driven behaviours are said to be ‘heat-of-the-moment’ actions or thoughts which are governed by the momentary emotional state and its effect on cognitive processing; judgement-driven behaviours, on the other hand, are said to be based on more calculated, rational decision processes which are influenced by evaluations or attitudes.

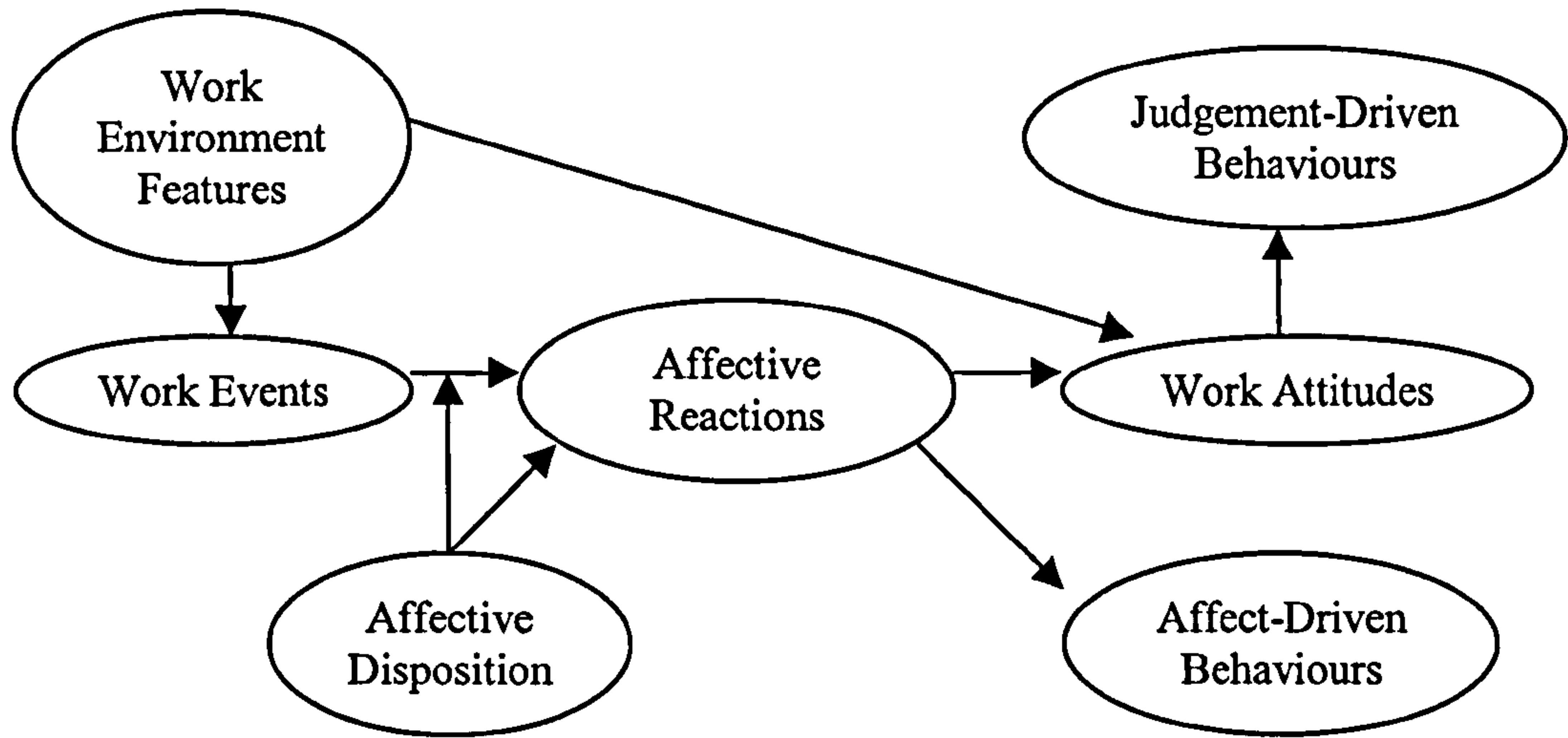


Figure 7.1. The Affective Events Theory (Weiss & Cropanzano 1996, p.12).

Considering how promising the Affective Events Theory seemed when it was first proposed, it is somewhat surprising how little attention it has received since then by researchers studying workplace affect. In Chapter 1 I mentioned a couple of exceptions (e.g. studies by Fisher, 2002; Grandey et al. 2002; Miner, 2002). These studies (particularly Fisher, 2002) produced findings which, on the whole, supported the model’s predictions.

In this chapter, I intend to explore some of the propositions of this theory, using the data collected in the quantitative diary study and presented in Chapters 5 and 6. In Chapter 6 I already showed that positive emotions experienced at work over a two-week period may be associated with an individual’s work attitudes; in this chapter, I will expand upon this finding in two ways. Firstly, I will explore the idea that positive emotions at work (as momentary reactions to events) and work attitudes (as relatively stable evaluations), although empirically related, might nonetheless have

quite different antecedents and outcomes, such that we can definitively say that they constitute separate and distinct constructs which should no longer be treated as equivalent in organisational research (Weiss, 2002). Secondly, I will examine the nature of the relationship between positive emotions and attitudes. Can we really demonstrate that the cumulative experience of positive emotions on the job predict a worker's attitudes, as Weiss and Cropanzano (1996) suggest, or is it rather the case that workers who have favourable attitudes towards their job in the first place are simply more likely to either experience or report positive emotions?

I now address these two sets of issues in turn.

7.2. The Antecedents and Outcomes of Positive Emotions and Attitudes

In Chapter 6 I showed that the average intensity of positive emotions experienced at work over a two-week period is associated with an individual's work attitudes (job satisfaction and organisational commitment), indicating that the two sets of constructs are related. I now want to explore the possibility that although the two sets of constructs are related, they are also distinct and fairly independent from each other, to the extent that they are associated with qualitatively different types of antecedents and outcomes. To do so, I will test a structural model based on the Affective Events Theory (see Figure 7.2 below).

The possibility that positive emotions and work attitudes might predict different outcomes is, I would argue, particularly important to establish. This is the proposition which most crucially justifies distinguishing between emotions at work and work attitudes, since it suggests that measuring emotions can increase our ability to predict organisationally relevant outcomes, above and beyond what research on attitudes such as job satisfaction can tell us. Do real-time data on positive emotional experiences at work really tell us anything more about work-relevant outcomes (such as performance) than cross-sectional measures of work attitudes, as has been suggested recently by some researchers (Briner, 1999; Weiss, 2002)? As I described above, the Affective Events Theory proposes that emotions may give rise to 'heat-of-the-moment' affect-driven behaviours, whereas attitudes predict more carefully calculated judgement-driven behaviours.

In the model I present below I will test this proposition; to do this, I will specify in the model a number of affect-driven behaviours (derived from the empirical work I have presented in previous chapters) and a judgement-driven behaviour, each of which I propose will be predicted by *either* positive emotions *or* work attitudes, respectively, but not both.

To further explore the possibility that positive emotions and attitudes are largely distinct and separate constructs, I will examine whether or not they are predicted by the same sorts of work environment features. The Affective Events Theory does not specify whether there might be any differences between the types of work environment features which influence attitudes directly and those which do so indirectly, via the experience of emotions. It seems likely that some work features are more predictive of events (leading to the experience of emotions) than others. For instance, the findings of this study show that social relationships at work were a very common source of positive emotions (see Chapter 5); however, other aspects of work which are likely to influence work attitudes, such as pay conditions, were not implied by any events reported by the care workers.

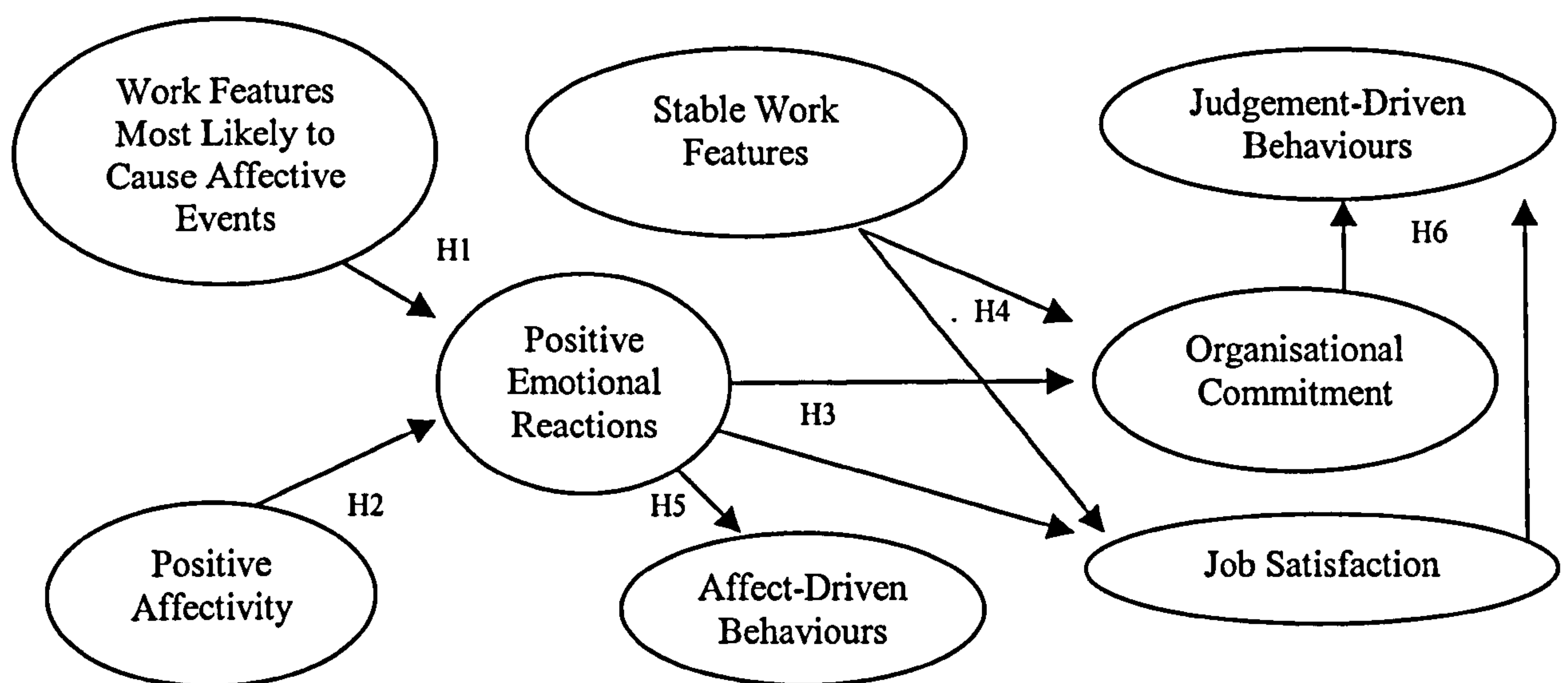


Figure 7.2. Structural parameters for the proposed model (based partly on Weiss & Cropanzano's 1996 Affective Events Theory).

H1 to H6 = hypotheses 1 to 6.

In this section I look at a number of work environment features (which I already presented in Chapter 5) as antecedents of positive emotional experiences and work attitudes. In the model I present, I will propose that some of these work features will be more strongly associated with positive emotions rather than attitudes, and that others will be more strongly associated with attitudes rather than emotional experiences. More specifically, I will propose that the types of work environment features that are most likely to be predictive of positive emotions are those which are most likely to give rise to events at work on a day-to-day basis; in other words, those which seem to overlap semantically with the events which were reported in Chapter 5

as situational antecedents of positive emotions. I will also propose that the work environment features which are less likely to give rise to workplace events will be less predictive of positive emotional experiences at work, and more directly predictive of work attitudes.

Given the number of affect-driven behaviours and work environment features which I will be examining in this model, I have decided to test three different variations of the same model. The variables and associated hypotheses are identical in all three variations with the exception of the specific affect-driven behaviours the work environment features which are included in each one. I decided to test the model this way, instead of including all of the variables at once, in order to avoid saturating the model. The three models I am presenting are not competing, they simply represent variations of the same idea and same predictions.

7.2.1. Predicting Positive Emotional Reactions at Work

Weiss and Cropanzano's (1996) Affective Events Theory states that work environment features influence emotional experiences at work, via the occurrence of events. I argue here, based on my own findings, that only *some* work features are likely to give rise, on a day-to-day basis, to emotion-inducing events.

As described in Chapter 5, a number of work environment features were measured in this study, using participants' own perceptions of these features. From a factor analysis of 33 items, 6 factors emerged (for a description of the selection of these items, see Chapter 5, section 5.2.2). To recapitulate, the factors that emerged were labelled: *social relationships with clients, social relationships with colleagues, the extent to which the work is challenging and interesting, pay and progression opportunities, training opportunities and flexibility of working hours and time planning.*

The findings presented in Chapter 5 revealed that by far the most common situational antecedents of positive emotions at work were social interactions with clients and task performance. Some of the other events that were elicited less frequently (and not included in the analyses which I presented in Chapter 5) were social interactions with colleagues and meeting new clients. Each of these particular types of events seem to correspond rather neatly to the first three of the six work features listed above: the quality of social relationships with clients is likely to predispose the occurrence of pleasant social interactions with clients; the quality of social relationships with colleagues is likely to predispose the occurrence of pleasant social interactions with colleagues; the extent to which the work is challenging and

interesting is, in turn, likely to predispose the occurrence of events where the workers can enjoy carrying out tasks and also events where they might meet new clients.

The proposition that these particular work environment features should be associated with emotional experiences is also consistent with the existing literature on emotions. As I pointed out in Chapter 5, social relationships and interactions have been found to be by far the most common antecedents of emotions and emotional well-being (Argyle 1987; Kemper 1978, Shaver, Wu & Schwartz, 1992). There is also evidence to suggest that a feature such as having challenging and interesting work might be a precursor to positive emotional experiences; positive affective states have been previously linked with performance on challenging tasks (e.g. Csikszentmihalyi & LeFevre, 1989), skill use, and variety in work content (e.g. Hackman & Oldham, 1980).

Therefore, in each of the three model variations I include one of these three work environment features, as a likely antecedent of positive emotional reactions to events: in Variation A I include a measure of *social relationships with clients*, in Variation B I substitute this with a measure of *social relationships with colleagues*, and in Variation C I substitute it with a measure of *how challenging and interesting the work is*.

Hypothesis 1A (Variation A): Perceived social relationships with clients will be positively related to positive emotional reactions experienced over 2 weeks.

Hypothesis 1B (Variation B): Perceived social relationships with colleagues will be positively related to positive emotional reactions experienced over 2 weeks.

Hypothesis 1C (Variation C): Perceived extent to which work is challenging and interesting will be positively related to positive emotional reactions experienced over 2 weeks.

The Affective Events Theory also predicts that affective dispositions predict affective reactions at work. Positive Affectivity is said to reflect a generally positive outlook on life, which should prime positively toned appraisals of situations (Lazarus, 1991). Individuals high in PA should be more prone to respond with positive feelings to any potentially pleasing events on the job than those low in PA (Watson, Clark & Tellegen, 1988).

Hypothesis 2 (All three Variations): Positive Affectivity will be positively related to positive emotions experienced over 2 weeks.

7.2.2. Predicting Work Attitudes

The Affective Events Theory states that work environment features may have both direct and indirect (via emotional reactions) effects on job attitudes. In this model, I examine the two attitude constructs which were presented in Chapter 6: job satisfaction and organisational commitment, which are probably the two most often studied work attitudes.

As mentioned above, the Affective Events Theory suggests that (positive) affective reactions at work should influence job attitudes, such that high levels of pleasant emotional experiences should create more positive attitudes towards the job than low levels. In the previous chapter I demonstrated that the measure of positive emotional experience that was most closely associated with work attitudes was the intensity (using the average of the 3 most intensely-rated emotions) rather than frequency of these experiences. Therefore, in the model I will adopt this measure of intensity of positive emotional experience.

Hypothesis 3 (All three Variations): Positive Affective Reactions experienced over two weeks will be positively related to job satisfaction and organisational commitment.

The Affective Events Theory also suggests that work environment features may have direct effects on work attitudes, through a process of cognitive comparison (see e.g. Hackman & Oldham, 1980; Oldham, Kulik, Ambrose & Stepina, 1986). When asked to construct an evaluation or attitude about their job, workers are likely to use information, for instance, about how much they earn, by comparing their own salary with those of the people around them, or against their own expectations (Oldham, Kulik, Ambrose & Stepina, 1986). This process need not be mediated by emotional events. This is not to say that the occurrence of emotional events related to pay is unfathomable, but simply that pay conditions are on the whole much less likely to be a source of emotional events over a given time period, such as would be likely to be recalled by a worker asked to report an attitude about his or her job. I believe a number of work environment features are more likely, on the whole, to influence work attitudes directly through this process, rather than via the cumulative experience of emotional events.

In this research, three specific work environment features were measured which appeared to bear no correspondence to the types of events that were elicited by participants as emotional events. These more stable, less dynamic features of work

were pay and progression opportunities, training opportunities and flexibility of working hours and time planning. Therefore, in each of the three model variations I include one of these three work environment features, as a likely antecedent of work attitudes: in Variation A I include a measure of *flexibility of working hours and time planning*, in Variation B I substitute this with a measure of *training opportunities*, and in Variation C I substitute it with a measure of *pay and progression opportunities*. I should point out here that the pairings were chosen at random e.g. there is no particular reason why the factor flexibility of working hours and time planning was paired in Variation A with the factor social relationships with clients. When alternative factor pairings were adopted, very similar findings were observed (provided each pairing contained *one* emotional event-inducing factor and *one* attitude-predicting stable factor).

Hypothesis 4A (Variation A): Perceived flexibility of working hours and time planning will be positively related to job satisfaction and organisational commitment.

Hypothesis 4B (Variation B): Perceived training opportunities will be positively related to job satisfaction and organisational commitment.

Hypothesis 4C (Variation C): Perceived pay and progression opportunities will be positively related to job satisfaction and organisational commitment.

7.2.3. Predicting Behaviours

Weiss and Cropanzano (1996) included behaviours as outcomes in their Affective Events Theory. They grouped these into two categories: affect-driven behaviours (which follow directly from emotional experiences) and judgement-driven behaviours (which are predicted by attitudes). In the model variations I include examples of both of these types of behaviours, using some variables I have already dealt previously in this thesis (as examples of affect-driven behaviours), and also introducing a new variable (as an example of a judgement-driven behaviour).

The research I have presented in this thesis (see Chapters 4 and 6) suggests that there are a number of behavioural outcomes that follow from positive emotional experiences: *boosts in motivation, the desire to help* and *insights into the job* (the latter is more of an effect on cognitive processing and not technically a behaviour as such, but it is an outcome which is likely to impact directly on performance, so I

would argue that it is relevant in this context)²⁰. As suggested by the fact that they were elicited in the first place by the care workers as consequences of a positive emotional experience, it seems likely that each of these outcomes are likely to be affect-driven behaviours, ‘heat-of-the-moment’ action tendencies (or in the case of insights into the job, *thought-action tendencies* – see Fredrickson, 1998). Previous research also supports the idea that these outcomes are related to positive emotional experiences (e.g. Fisher, 2002; Fredrickson, 1998; Isen & Baron, 1991). I would therefore expect boosts in motivation, the desire to help and insights into the job to be more closely associated to positive emotional experiences than to attitudes.

Therefore, in each of the three model variations I include one of these three variables, as affect-driven outcomes: in Variation A I include a measure of *increased motivation*, in Variation B I substitute this with a measure of *insights into the job*, and in Variation C I substitute it with a measure of *the desire to help*. Once again, I should point out that the pairings were chosen at random. When alternative factor pairings were adopted, very similar findings were observed.

Hypothesis 5A (Variation A): Positive emotional experiences will be positively associated with increased motivation.

Hypothesis 5B (Variation B): Positive emotional experiences will be positively associated with insights into the job.

Hypothesis 5C (Variation C): Positive emotional experiences will be positively associated with the desire to help.

As a judgement-driven behaviour, I include a variable which I have not dealt with until now, the intention to quit or leave one’s job. This variable is often used in research as a surrogate for turnover; the average correlation between these variables is said to be .50 (Steel & Ovalle, 1984). It is argued to be a more useful variable than turnover for a number of reasons (Dalesio, Silverman & Schuck, 1986), of which the most relevant here is the fact that the number of employees leaving their organization during a 2-week research study is likely to be very small. I would propose that intention to quit is a careful, cognitively-driven decision (see Fisher 2002; Organ & Near, 1985), rather than a ‘heat-of-the-moment’ behaviour, most of the time anyway. I would therefore expect the intention to quit to be predicted by work attitudes rather than positive emotional experiences, consistent with the findings of Fisher (2002).

²⁰ The other outcomes which were elicited in Chapters 4 and 6 (self-esteem, self-efficacy and sense of meaning) seem to refer to more general psychological states and would seem to be perhaps less immediately relevant to work-related behaviours, so I do not include them in these analyses.

Hypothesis 6 (All three Variations): Job satisfaction and organisational commitment will be negatively associated with intention to quit.

7.2.4. Measures

All but one of the measures which are included in the structural model I am proposing here have already been described in previous chapters. I therefore refer to the reader to the Method section of Chapter 5 for a description of the measures of the work environment features and of positive affectivity, and to the Method section of Chapter 6 for a description of the measure of the intensity of positive emotions at work (the average of the 3 most-intensely rated emotions), affect-driven behaviours (which are described under the heading *same-day outcomes*) and work attitudes.

The only new measure which I introduce here is a measure of the intention to quit, as a judgement-driven behaviour. *Intention to Quit* was measured using a 2-item measure, derived from the Michigan Organizational Assessment Questionnaire (Seashore, Lawler, Mirvis & Cammann, 1982). This measure had an alpha of .75.

7.2.5. Descriptives Statistics

Although most of the measures have already been described in previous chapters, this is the first time that some of these variables have been considered simultaneously. I therefore provide a new table of descriptive statistics and correlations below; I will refer to some of the zero-order correlations throughout this section, as relevant to the discussion of the model.

Table 7.1. Descriptive Statistics and Zero-order Correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Social Relationships with Clients	4.34	0.37	.72													
2. Social Relationships with Colleagues	4.42	0.51	.49**	.80												
3. Pay and Progression Opportunities	3.44	0.73	.16	.06	.66											
4. How Challenging & Interesting Work is	4.21	0.57	.29**	.39**	.41**	.90										
5. Training Opportunities	4.38	0.53	.21	.23*	.28*	.57**	.75									
6. Flexibility of working hours & time planning	3.53	0.76	.05	.19	.27*	.44**	.13	.65								
7. Positive Affectivity	76.32	10.69	.11	.13	.20	.30**	.24*	.22	.93							
8. Positive Affective Reactions	4.20	0.75	.25*	.27*	.17	.32**	.21	.02	.40**	.89						
9. Job Satisfaction	6.33	0.76	.13	.28*	.26*	.44**	.39**	.34**	.38**	.35**	—					
10. Organisational Commitment	24.05	5.49	.07	.20	.43**	.38**	.29**	.16	.31**	.36**	.55**	.72				
11. Increased motivation	0.48	0.32	.05	.12	.23*	.20	.12	.23*	.28*	.45**	.35**	.22	—			
12. Insights into one's work	0.21	0.24	-.11	.14	.20	.25*	.16	.10	.25*	.33**	.31**	.35**	.49**	—		
13. Desire to Help	0.41	0.31	.23*	.28*	.13	.15	.03	.20	.07	.38**	.19	.16	.45**	.29*	—	
14. Intention to Quit	3.71	2.43	-.08	-.05	-.41**	-.29**	-.21	-.25*	-.19	-.10	-.28*	-.53**	-.23*	-.27*	-.25*	.75

Note. N = 77 * = p < .05, ** = p < .01 Alpha coefficients are located in the diagonal.

The mean figures for the affect-driven behaviours outcomes (11-13) represent the following ratio: total number of times outcome was reported / total number of diary entries (in the other words, the average likelihood that the outcome was reported on any given occasion)

7.2.6. Statistical Analysis

Path Analysis was implemented using LISREL 8, version 8.54 (Jöreskog & Sörbom, 2000), to test each of the three model variations. In its simplest description, path analysis is method for determining the extent to which data on a set of variables are consistent with hypotheses about causal association among the variables. It differs from traditional individual regression analyses in that a given variable may be at the same time an independent variable (or predictor) *and* a dependent variable (or outcome), such that the analyses assume that *all* variables (not just the dependent variables) are subject to measurement error or uncontrolled variation. Path analysis has the advantage over individual regression analyses when testing relationships between variables which have various specified pathways among them, in that when estimating each coefficient, it controls for the effect of all other variables which are included in the model.

Path analysis, a component of structural equation modelling, implies a structure of the covariance matrix of the variables included. Once the model's parameters have been estimated, the resulting model-implied covariance matrix can then be compared to an empirical or data-based covariance matrix. If the two matrices are consistent with one another, then the path model (or structural equation model) can be considered a plausible explanation for relations between the measures. Indices of fit tell us to what extent a specified path model can thus be considered a plausible explanation for relations between the measures.

Structural equation modelling, in general, is a largely confirmatory, rather than exploratory, technique. A researcher is more likely to use this kind of analysis to determine whether a certain model is valid (as is the case here), rather than to 'find' a suitable model, although such analyses do often involve a certain exploratory element. As such, following the testing of the parameters of a particular model, the statistical software program provides *modification indices*, that is, it may suggest pathways between particular variables which, if specified by the researcher, would be likely to improve the model's fit.

7.2.7. Testing the Model

Based on the recommendations of others (Jöreskog, 1993) I present several different indices of the adequacy of model fit: the chi-square statistic (which is widely used), the Adjusted Goodness of Fit Index (AGFI) (for which values vary between 0 and 1.0 and, by convention, values of .90 and above are considered to indicate good model fit

(Hoyle, 1995)) and the root mean square of approximation (RMSEA) (which is a measure of discrepancy between the predicted and observed covariance matrices per degree of freedom: values of .05 or below indicate a close fit, while values of up to .08 are considered reasonable errors of approximation).

Figure 7.3 presents the results obtained from the test of Variation A of the model. Looking at the fit indices, it can be concluded that the model fits the data reasonably well: $\chi^2_{(15, N=77)} = 20.17$ ($p = .17$), AGFI = .85, RMSEA = 0.069 (p (RMSEA < .05) = .32). The AGFI is slightly below the recommended value for good fit. Removing all non-significant paths from the model resulted in a model fit which was only marginally better: $\chi^2_{(17, N=77)} = 22.52$ ($p = .17$), AGFI = .85, RMSEA = 0.067 (p (RMSEA < .05) = .33). The difference in χ^2 between the two was not statistically significant ($\chi^2_{(2, N=77)} = 2.35$).

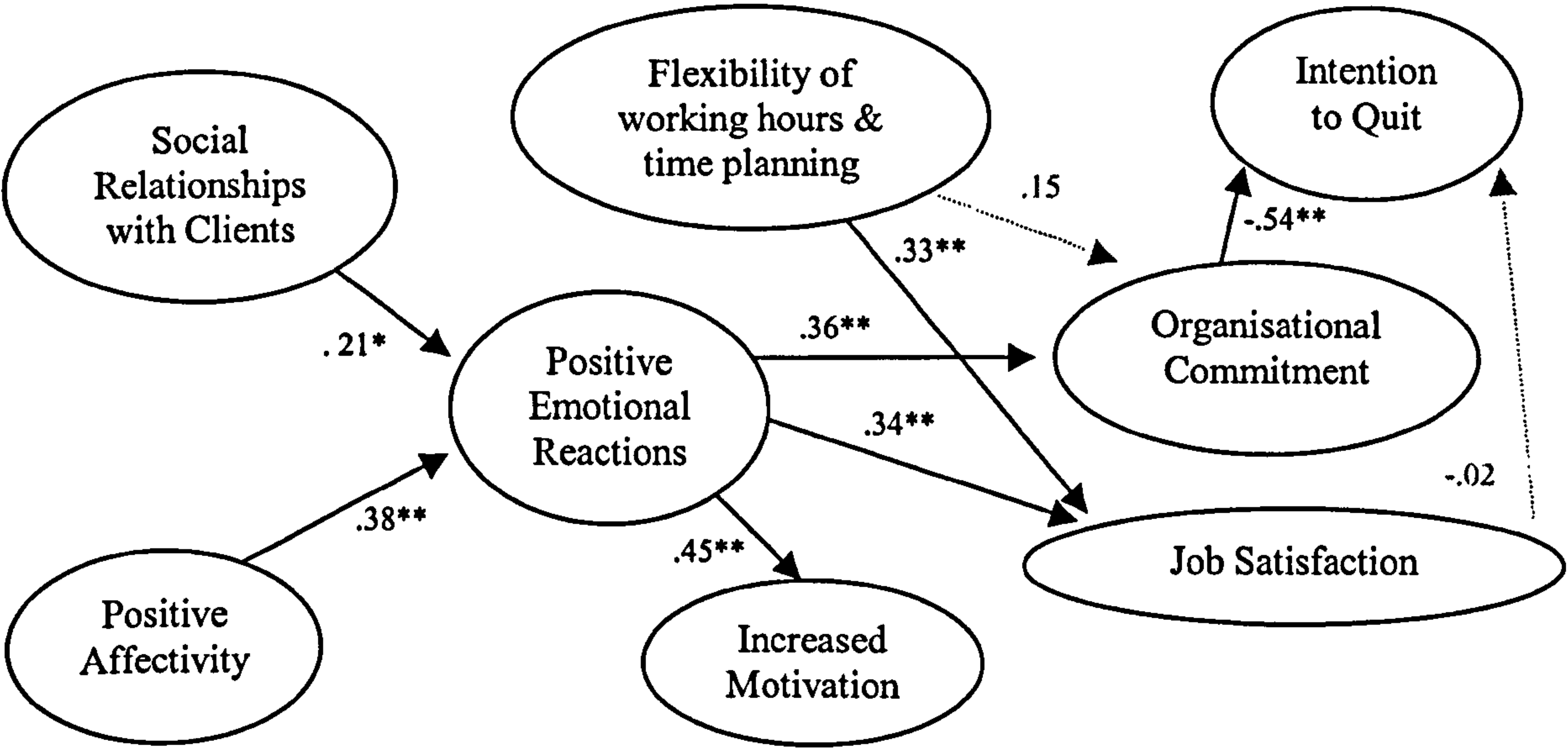


Figure 7.3. Results of the test of the Model of Positive Emotions and Attitudes. Model Variation A Standardised Structural Coefficients. * = $p < .05$ ** = $p < .01$ Non-significant relationships are shaded.

Figure 7.4 presents the results obtained from the test of Variation B of the model. Looking at the fit indices, it can be concluded that the model fits the data reasonably well: $\chi^2_{(15, N=77)} = 17.09$ ($p = .31$), AGFI = .87, RMSEA = 0.044 (p (RMSEA < .05) = .49). The AGFI is slightly below the recommended value for good fit. Removing all non-significant paths from the model resulted in a model fit which was slightly better

on all indices: $\chi^2_{(16, N=77)} = 17.05$ ($p = .34$), AGFI = .88, RMSEA = 0.030 (p (RMSEA < .05) = .57). The difference in χ^2 between the two was not statistically significant ($\chi^2_{(1, N=77)} = 0.04$).

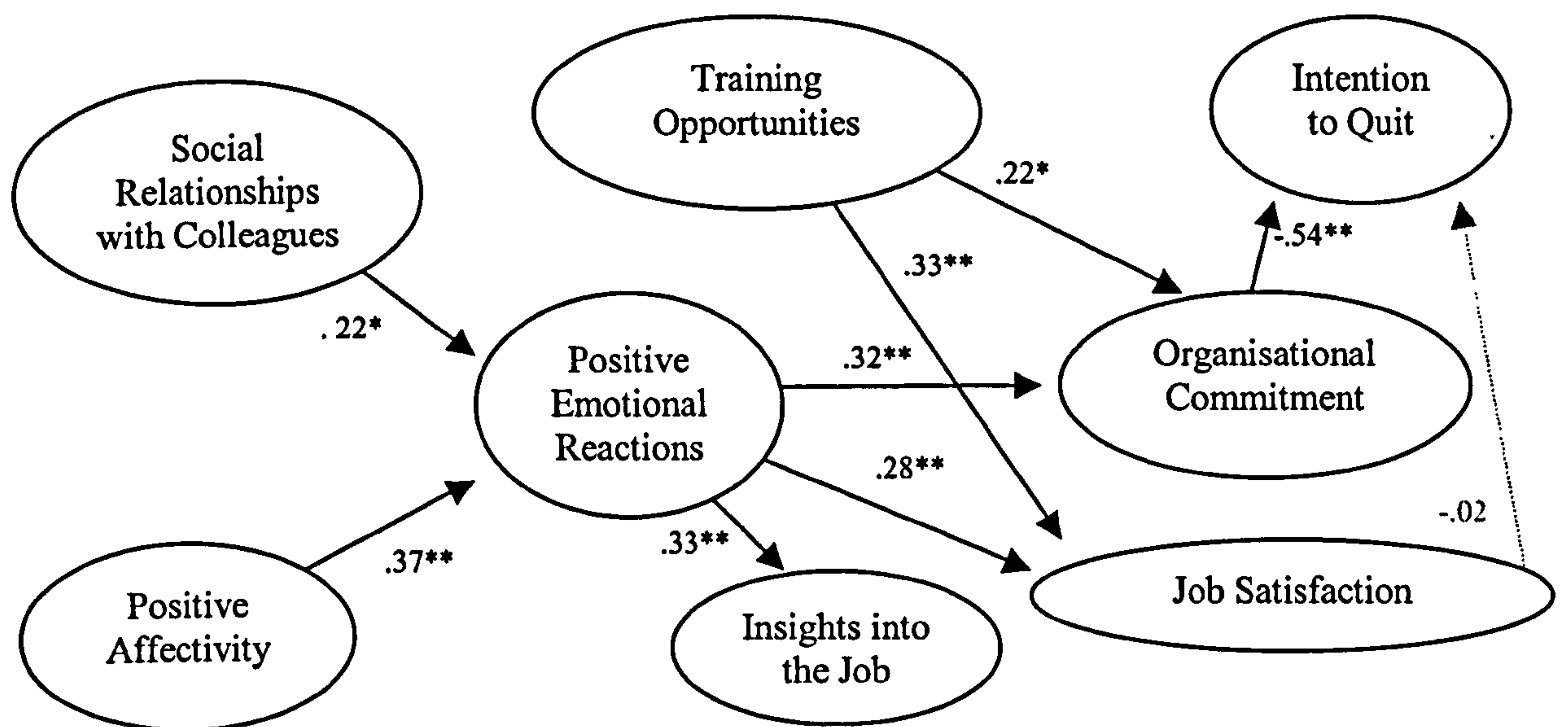


Figure 7.4. Results of the test of the Model of Positive Emotions and Attitudes. Model Variation B Standardized Structural Coefficients. * = $p < .05$ ** = $p < .01$ Non-significant relationships are shaded.

Figure 7.5 presents the results obtained from the test of Variation C of the model. The fit indices reveal an unacceptable model fit: $\chi^2_{(15, N=77)} = 23.63$ ($p = .072$), AGFI = .83, RMSEA = 0.089 (p (RMSEA < .05) = .17). All indices of fit are short of the recommended value for good fit. However, removing all non-significant paths from the model, and adding one relationship (as suggested by the modification indices) between the work feature challenging and interesting work and job satisfaction, resulted in a model fit which was better on all indices: $\chi^2_{(14, N=77)} = 18.64$ ($p = .18$), AGFI = .85, RMSEA = 0.067 (p (RMSEA < .05) = .33). The difference in χ^2 between the two was also statistically significant ($\chi^2_{(1, N=77)} = 4.99$, $p < .05$).

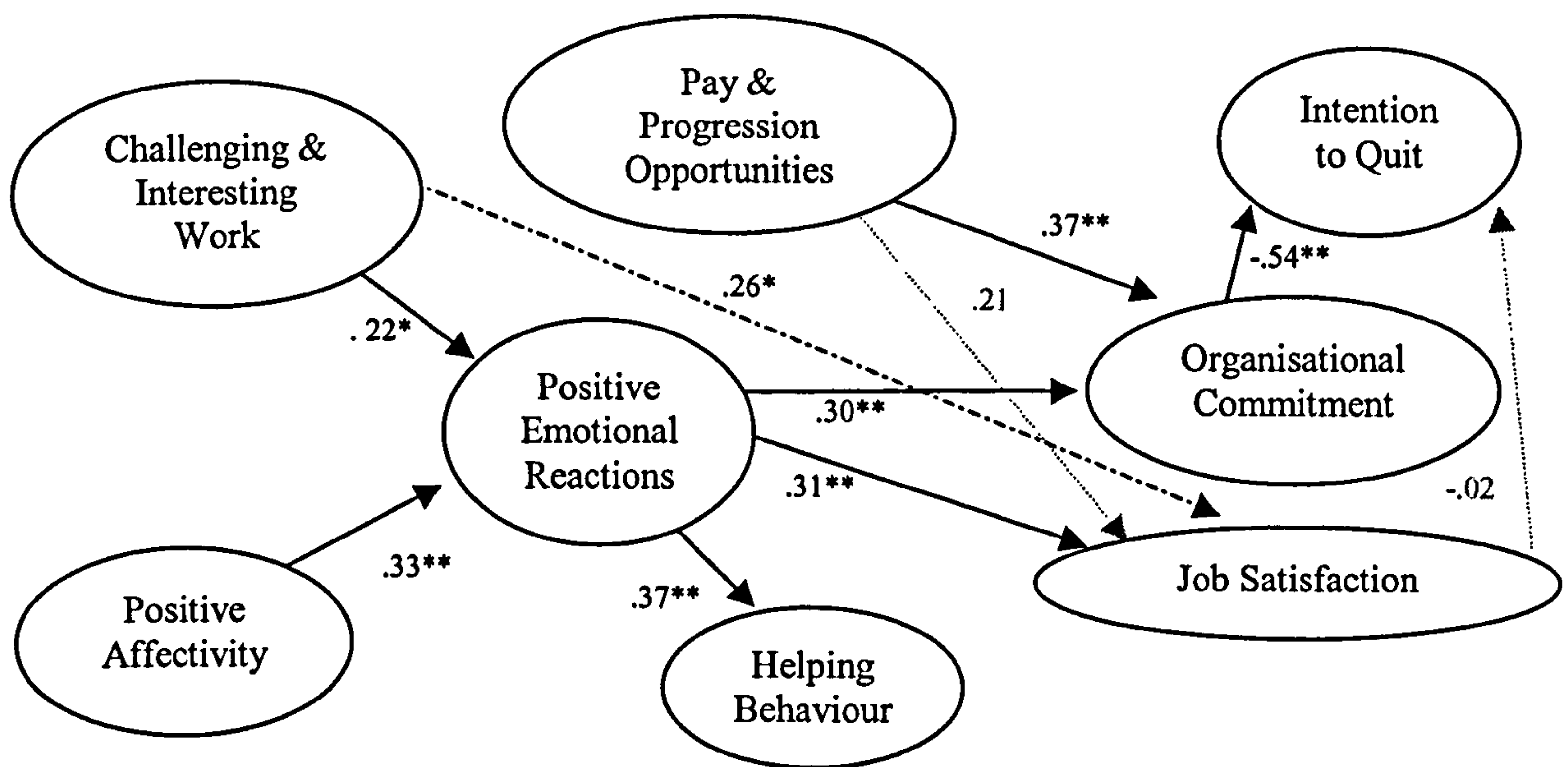


Figure 7.5. Results of the test of the Model of Positive Emotions and Attitudes. Model Variation C
Standardized Structural Coefficients. * = $p < .05$ ** = $p < .01$

Non-significant relationships are shaded.

Intermittent arrow paths represent relationships suggested by the modification indices.

The first hypothesis stated that work features that were likely to predispose the occurrence of affective events would be positively associated with positive emotional reactions experienced by care workers over a 2-week period. This hypothesis was upheld in full: perceived social relationships with clients (in Variation A) and colleagues (in Variation B) and having challenging and interesting work (in Variation C) were each positively associated with positive emotional experiences. Examination of Figure 7.3 shows that the path from social relationships with clients to positive emotional reactions is positive and significant ($R = .21$, $p < .05$). Figure 7.4 similarly reveals that the path from social relationships with colleagues to positive emotional reactions is positive and significant ($R = .22$, $p < .05$). Lastly, Figure 7.5 reveals that the path from social relationships with colleagues to positive emotional reactions is also positive and significant ($R = .22$, $p < .05$).

Hypothesis 2 specified a positive association between positive affectivity and positive emotions experienced over a 2-week period. An examination of Figures 7.3, 7.4 and 7.5 show that this hypothesized relationship was supported in all three variations of the model (in Variation A, $R = .38$, $p < .01$; in Variation B, $R = .37$, $p < .01$; in Variation C, $R = .33$, $p < .01$).

Hypothesis 3 proposed positive associations between positive emotional reactions at work experienced over a 2-week period and job satisfaction and organisational commitment. This hypothesis was upheld in full: results in all three model variations supported a positive association between positive emotions and organisational commitment ($R = .36, p < .01$ in Variation A; $R = .32, p < .01$ in Variation B, $R = .30, p < .01$ in Variation C) and a positive association between positive emotions and job satisfaction ($R = .34, p < .01$ in Variation A; $R = .28, p < .01$ in Variation B; $R = .31, p < .01$ in Variation C).

Hypothesis 4 stated that stable features of the work environment, which were less likely to give rise to emotional events, would be positively associated with both work attitudes: job satisfaction and organisational commitment. This general hypothesis was partially confirmed by the data. Variation 4A specified that flexibility of working hours and time planning would be positively associated with job satisfaction and organisational commitment. In this variation of the model, the proposed hypothesis was partly upheld: the path to job satisfaction was positive and significant ($R = .33, p < .01$) whereas the path to organisational commitment did not reach significance ($R = .15, ns$). Variation 4B proposed a positive association between perceived training opportunities and job satisfaction and organisational commitment. This hypothesis was upheld in full: the path to job satisfaction was positive and significant ($R = .33, p < .01$) as was the path to organisational commitment ($R = .22, p < .05$). Lastly, Variation C specified a positive association between perceived pay and progression opportunities, and job satisfaction and organisational commitment. This hypothesis was partly upheld: the path to organisational commitment was positive and significant ($R = .37, p < .01$) whereas the path to job satisfaction was very weak ($R = .21, ns$).

Hypothesis 5 predicted a positive association between positive emotional experiences and various proposed affect-driven behaviours. This hypothesis was upheld in full. Examination of Figure 7.3 shows that the path from positive emotional reactions to increased motivation is positive and significant ($R = .45, p < .01$). Figure 7.4 similarly reveals that the path from positive emotional reactions to insights on the job is positive and significant ($R = .33, p < .01$). Lastly, Figure 7.5 reveals that the path from positive emotional reactions to helping behaviours is also positive and significant ($R = .37, p < .01$).

Hypothesis 6 proposed a negative association between the work attitudes job satisfaction and organisational commitment, and the intention to quit. The results from the three variations of the model only partly supported this hypothesis: the path from organisational commitment to intention to quit was negative and significant in

all three variations ($R = -.54$, $p < .01$ for Variations A, B and C) whereas the path from job satisfaction to intention to quit was non-significant and, in fact, almost zero in all three variations ($R = -.02$, ns for Variations A, B and C).

7.2.8. Discussion: the Antecedents and Outcomes of Positive Emotions and Attitudes

Firstly, the results of these model variations appear to validate my decision to differentiate between different types of work environment features in my test of the Affective Events Theory. Those work features which I suggested might have been most likely to predispose the occurrence of emotional events at work were, as hypothesized, predictive of positive emotional experiences. On the other hand, those more stable 'in-the-background' features of work which I predicted would be unlikely to give rise to affective events were, as hypothesized, each related to at least one of the work attitudes, and interestingly *unrelated* to the positive emotional experiences (see zero-order correlations in Table 7.1).

This finding suggests that (positive) emotions at work and work attitudes have separate situational antecedents. Our data support the central tenet of the Affective Events Theory, but with a stipulation. If people recall and use information about past emotional events when asked to form an attitude or evaluation about their job, as the Affective Events Theory proposes, it seems that the only aspects of their work which are most likely to influence such a process are those which predispose the occurrence of day-to-day events, namely social interactions and opportunities to use skills. Other, less dynamic features of the work environment are more likely to influence job attitudes directly, presumably by cognitive comparison processes as traditionally assumed, rather than by recall of related emotional events.

The Affective Events Theory suggests that emotions may mediate the relationships between work environment features and work attitudes. Does my data provide support for this proposition? There are some indications of a mediation role from the data. Table 7.1 reveals that the zero-order correlations between social relationships with clients and social relationships with colleagues on the one hand, and job satisfaction and organisational commitment on the other, were all positive although only one – the one between social relationships with colleagues and job satisfaction ($R = .28$, $p < .05$) – reached significance. Interestingly, a partial correlation reveals that this correlation falls below the significance level after controlling for positive affective experiences ($R = .21$, ns), which might suggest the presence of a mediation effect. The zero-order correlations displayed in Table 7.1 reveal significant associations between challenging and interesting work, and

organisational commitment ($R = .38, p < .01$) and job satisfaction ($R = .44, p < .01$). However, these correlations coefficients became weaker (albeit still significant) once the effect of positive emotional experiences was controlled for ($R = .31, p < .01$ with organisational commitment; $R = .37, p < .01$ with job satisfaction). Again, this suggests that positive emotional experiences may have partially mediated the relationships between certain features of care work, on the one hand, and workers' attitudes towards their job on the other. However, overall there does not seem to be enough evidence to make any conclusive statements about the presence of a mediation effect.

Perhaps the most interesting and significant aspect of the results, however, is the finding that positive emotions and work attitudes give rise to different types of outcomes, as posited by Weiss & Cropanzano (1996). The fact that the likelihood of various affect-driven behaviours which I considered was found to be associated with the intensity of positive emotional experiences comes as no surprise; I already established this fact in Chapter 6. What is interesting to note though is that the likelihood of these outcomes being reported was much better predicted by the positive emotional experiences than by the work attitude measures. Although Table 7.1 reveals significant correlations between job satisfaction and increased motivation ($r = .35, p < .01$) and insights ($r = .31, p < .01$), once the effect of positive emotional experiences was controlled for in post-hoc partial correlations, both of these relationships fell below the significance level ($r = .22, ns$; and $r = .21, ns$, respectively). The desire to help was unrelated to either job satisfaction or organisational commitment, and only predicted by positive emotional experiences. On the whole therefore, the findings suggest that some work-relevant behaviours are much better predicted by workers' temporary positive emotional states than by their stable work attitudes. What this means is that measuring positive affect at work in terms of job satisfaction may be hindering researchers' attempts to understand how affect and performance are linked. I return to this argument in Chapter 9.

Not all behaviours are predicted better by temporary emotional states, however. In line with Weiss and Cropanzano's (1996) theory, I tested the possibility that the intention to quit (as a judgement- rather than affect-driven behaviour) would be associated with work attitudes rather than positive emotional states. The findings confirmed this proposition: I found the intention to quit to be (negatively) significantly associated with work attitudes, and in particular with organisational commitment (see all three model variations), but unrelated to positive emotional experiences (see Table 7.1), consistent with Fisher's (2002) findings, and consistent

with argument that quitting is, on the whole, likely to be a careful, cognitively-driven decision (Organ & Near, 1985).

7.2.9. Conclusions: Emotions vs. Attitudes

One of the implicit assumptions of Weiss & Cropanzano's (1996) Affective Events Theory is that (workplace) affect and attitudes are separate, independent constructs. This point has also been made elsewhere (Eagly & Chaiken, 1993; Weiss, 2002): whereas emotions are seen as being variable and transient, attitudes are by contrast seen as relatively stable constructs. My results support this view to the extent that positive emotions (measured over time) and attitudes were found to have different predictors and different outcomes.

In light of theoretical work such as Weiss & Cropanzano's (1996) Affective Events Theory, and the empirical findings present in this thesis (see also Fisher, 2002), it seems inappropriate for researchers to continue to treat positive workplace emotions and attitudes, such as job satisfaction, as equivalent constructs. It is arguably this kind of conceptual ambiguity that may have contributed, in part, to the disappointing yield from studies that attempt to link job satisfaction with outcomes such as performance (see Wright & Staw, 1999).

I will take up this discussion again in Chapter 9. Now, having demonstrated that positive emotions and work attitudes are separate, albeit related constructs, I turn to consider the issue of causality in the relationship between the two, specifically to evaluate the claim – made in the Affective Events Theory – that positive emotions at work predict attitudes towards that work.

7.3. Emotions and Attitudes: Issues of Causality

One of the premises of this thesis is that it is important to study positive emotional experiences because, among many other things, they may help us understand how workers form attitudes towards their work environments. One of the central propositions of the Affective Events Theory is that the cumulative experiences of emotions at work helps individuals to form cognitive evaluations, or attitudes, about that work or workplace.

The suggestion that experiencing pleasant emotions on the job makes a person more likely to have favourable attitudes towards their job makes intuitive sense. However, one could also argue that workers who have favourable attitudes towards their job in the first place might also be (a) more likely to appraise certain events as

positive, and therefore more likely to experience positive emotions; and / or (b) more prone to report positive emotional experience at work when these take place. Can we really be so sure that positive emotions influence attitudes, rather than vice versa?

It would seem important to ascertain the precise nature of this relationship, because it is likely to have quite direct practical implications. If it can be argued that positive emotional experiences really do shape attitudes in a causal sense (as the Affective Events Theory suggests) then managerial attempts to foster the types of desirable organisational outcomes related to positive work attitudes (such as reduced turnover) may be usefully directed at harnessing the types of events that are likely to give rise to those positive emotions. Failure to find any evidence for this interpretation of causality leaves the theory somewhat vulnerable to the interpretation that positive emotional experiences at work, as measured and presented in a study such as this one, might be largely determined by how satisfied or committed a worker is in their job in the first place, such that more satisfied or more committed workers would be more likely to appraise workplace events as positive, or indeed to admit and to report these emotions.

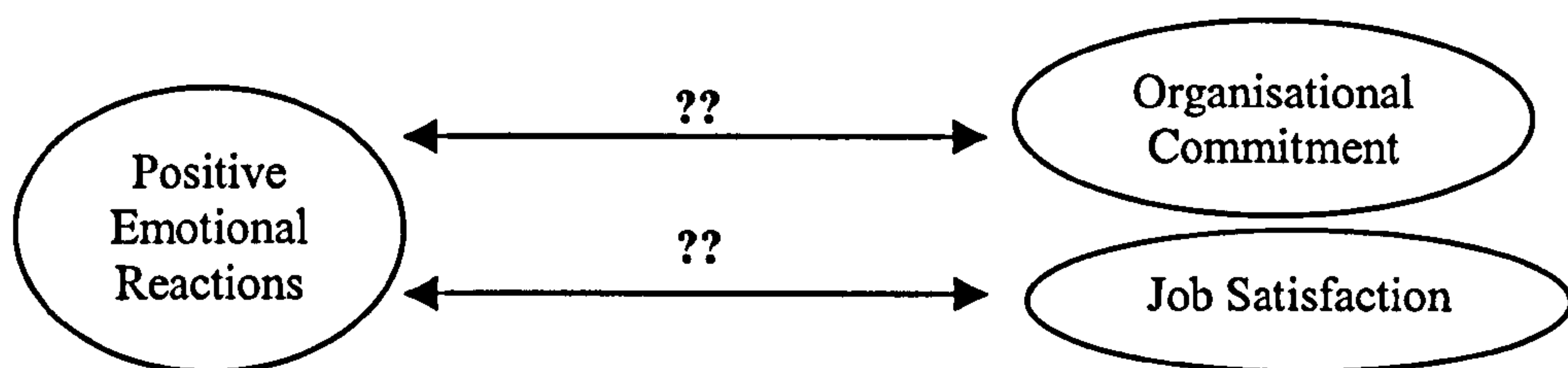


Figure 7.6. Do positive emotions shape attitudes or do attitudes determine the experience and / or reporting of positive emotions?

Whilst it is practically impossible to ascertain causality in the social sciences (Hollis, 1995), there are conditions under which it may be possible to draw reasonable causal inferences concerning the relationships between variables (De Lange, 2005; Kenny, 1975; Taris, 2000). These conditions are that the research investigating the relationship should (i) show a significant statistical relation between the presumed cause and outcome; (ii) demonstrate that the cause variables precedes the outcome variable in time; (iii) exclude possible alternative explanations; and (iv) provide a theoretical interpretation of the relationship under study. In this section I aim to present arguments, addressing these conditions, to support the directionality that is inferred in the Affective Events Theory: in other words, I will argue here that it is

more likely to be the case that positive emotions experienced at work impact on work attitudes rather than vice versa.

The first of the conditions which is stipulated as a prerequisite for making inferences about causality has essentially already been met and discussed in this thesis. As I demonstrated in Chapter 6, the average intensity (but not the frequency) of positive emotional experiences at work was found to be significantly and positively associated with both job satisfaction and organisational commitment.

I would argue that the second condition, which states that the cause variable should precede the outcome variable, was addressed by the design that was adopted in this research: positive emotions were measured over a two-week period, at the end of which the work attitudes were measured. Although much of the organisational research that attempts to establish causality between variables (for example, linking job characteristics to well-being) tends to adopt far larger time-lags i.e. of a year or even several years (see De Lange, 2005; Dormann and Zapf, 2002), I would argue that a time-lag of days or weeks may be sufficient for linking emotions to attitudes. A rare recent study of the relationship between affective states at work and job satisfaction found that the relationship between the two weakened as the time interval between the measurements increased – even over a two-week period – and the authors suggested that job satisfaction, whilst being far more stable than transient emotional states, may really be quite susceptible to variations in these states (Judge & Illies, 2004). The authors further argued that the effects of affective states on job satisfaction tend to be relatively short-lived (i.e. lasting days or weeks, rather than months or years). One could argue that most emotional memories fade after a while, and become replaced by more recent contextual emotional information. In other words, when asked to rate how satisfied at work we are, we tend to use memory cues of the most recent emotional events at work, and tend to largely forget emotional states of weeks or months gone by.

In any case, it is important to note here the fact that positive emotions and attitudes were not measured simultaneously (as they would have been in a cross-sectional design) thereby reducing the likelihood that the observed relationship was due to factors such as mood at the time of reporting the variables (see Brief, Butcher & Robertson, 1995), and I would argue that the temporal order of the measurement lends weight to the inferred direction of causality.

7.3.1. *Alternative Model*

The third condition or requirement for inferences of causality states that research investigating issues of causality should exclude possible alternative explanations. I therefore decided to explore an alternative model to examine the possibility that work attitudes might have predicted positive emotional experiences.

An alternative model was tested, in which the arrows from positive emotions to work attitudes were inverted, in each of the three model variations tested above (see Figure 7.7). In Variation A, the specified paths from organisational commitment and job satisfaction to positive emotional experiences were both non-significant ($R = .22$, ns, and $R = .10$, ns, respectively), and the resulting model fit was considerably worse on all indices: $\chi^2_{(15, N=77)} = 27.70$ ($p = .023$), AGFI = .80, RMSEA = 0.11 (p (RMSEA < .05) = .073). In Variation B, the specified paths from organisational commitment and job satisfaction to positive emotional experiences were also both non-significant ($R = .19$, ns, and $R = .10$, ns, respectively), and the resulting model fit was again worse on all indices: $\chi^2_{(15, N=77)} = 21.67$ ($p = .12$), AGFI = .84, RMSEA = 0.078 (p (RMSEA < .05) = .24). Similarly, in Variation C, the specified paths from organisational commitment and job satisfaction to positive emotional experiences were again both non-significant ($R = .19$, ns, and $R = .08$, ns, respectively), and the resulting model fit was once again considerably worse on all indices: $\chi^2_{(15, N=77)} = 29.44$ ($p = .01$), AGFI = .79, RMSEA = 0.11 (p (RMSEA < .05) = .05).

It was not possible to test for statistical differences in the χ^2 values of the model since the inverted variations contained an identical number of degrees of freedom (15). However, it is fairly obvious from the indices of fit that inverting the direction of the arrows between positive emotions and attitudes produced model variations that were qualitatively worse and which, in two of the cases (Variations A and C), had an unacceptable degree of fit to the data, and in the other case (Variation B) the degree of fit went from being close (with a RMSEA of lower than .05) to merely acceptable. Moreover, in all three variations, the specified pathways from attitudes to positive emotional experiences were non-significant.

The results observed from testing this alternative model therefore seem to largely rule out the possibility that work attitudes might be considered as antecedents rather than outcomes of positive emotional experiences at work.

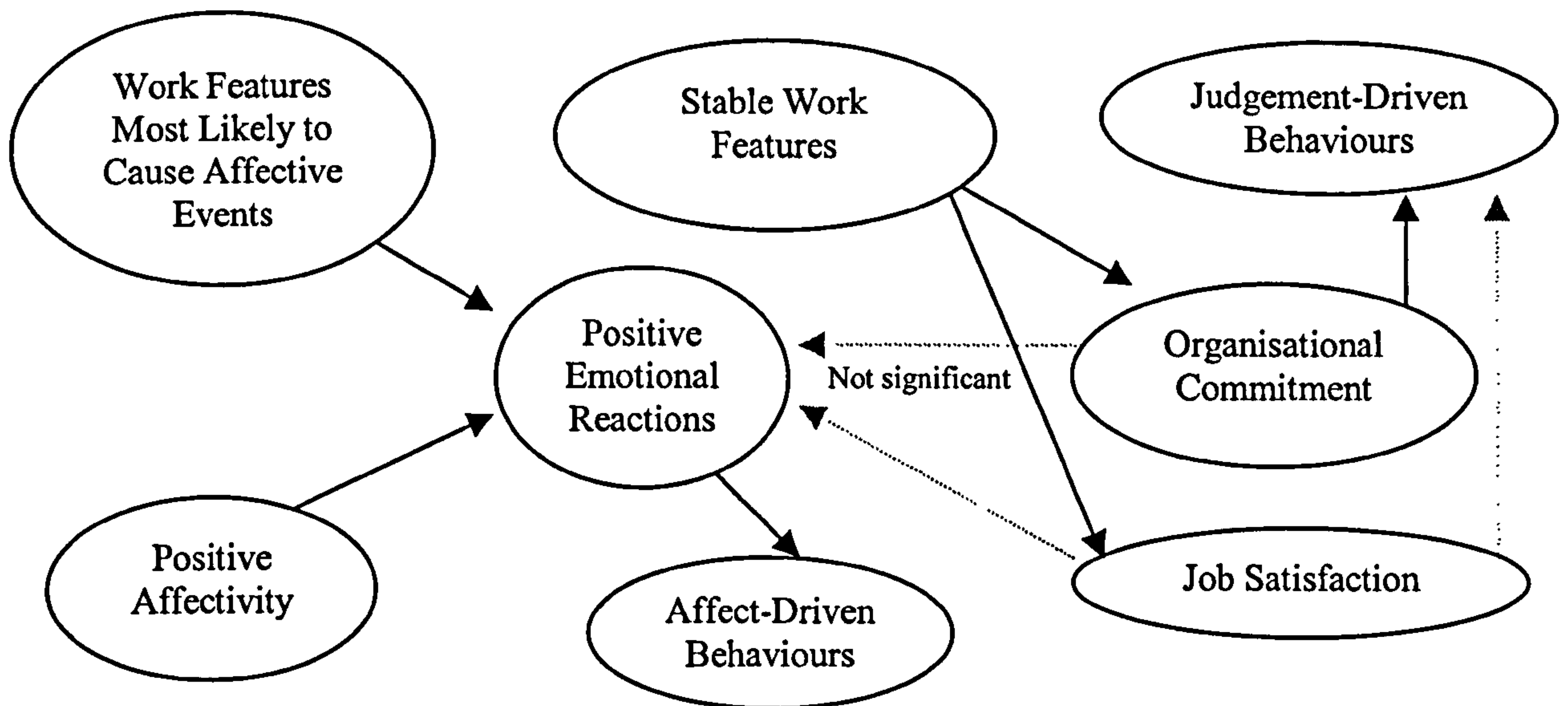


Figure 7.7. Results of the test of the Alternative Model of Positive Emotions and Attitudes. Relationships that were non-significant in all three model variations are shaded.

7.3.2. Further Mediation

The fourth condition which is stipulated as a prerequisite for making inferences about causality refers to the need to provide a theoretical interpretation of the relationship under study. Essentially, the Affective Events Theory provides this kind of theoretical interpretation, by suggesting that emotions influence attitudes because people recall and use information about previous emotional experiences at work when asked to form an evaluation about their work (Weiss & Cropanzano, 1996).

However, I believe it may be possible to develop this theoretical argument further, in a way which would strengthen the present interpretation of causality and further discredit any alternative explanations for the effects. One way to do this would be to find a mediating variable that would support the interpretation of directionality. To this end, a particularly good mediator would be one which could shown to be necessarily second in order temporally to the positive emotional experience. An excellent example of such a variable would one of the same-day outcomes reported by the care workers in the diaries which were, by design, dependent on the prior experience of a positive emotional episode. For instance, the outcome variable *long-lasting positive mood*. In Chapter 6 I showed that the more intense a positive emotional episode was, the more likely it was to be linked with a long-lasting positive mood for the rest of the day on which it was experienced.

If it could be shown, for instance, that positive emotional experiences at work influence work attitudes through the impact which they have on mood at work, such a mechanism might provide some further support for my interpretation of causality. One could posit that we might only recall work-related positive emotional experiences if these have a lasting impact on our affective well-being throughout the day (a theory I will develop in Chapter 9).

It is important to point out here that the likelihood of reporting long-lasting positive mood in the diaries was most strongly determined by the intensity of the emotional experience which preceded it (see Chapter 6). The intra-class correlations obtained from the multilevel analyses (see Chapter 6, section 6.5) suggest that 80% of the variance in the reporting of positive mood was accounted for by situational factors and only 20% was accounted for by individual variation. I believe this particular finding is crucial in this argument because it strongly suggests that the reporting of long-lasting moods really was mostly dependent on prior emotional episodes rather than on any dispositional differences between individuals; very importantly, it reduces the possibility that more satisfied or more committed employees would have been more likely to report long-lasting positive moods as a matter of course.

I decided to test a model of positive emotional experiences as predictors of each of the two work attitudes (one model for each attitude), using long-lasting positive mood as a mediating variable, and controlling for the effect of positive affectivity. As shown in Chapter 6, long-lasting mood was found to be associated with both job satisfaction ($R = .35, p < .01$) and organisational commitment ($R = .28, p < .05$).

The resulting models can be found below: Figure 7.8 shows a mediation model for job satisfaction, Figure 7.9 shows a corresponding model for organisational commitment.

As shown in Chapter 6, positive emotion intensity was positively and significantly correlated with job satisfaction, even after controlling for the effect of positive affectivity ($R = .29, p < .05$). As shown in Figure 7.8, this relationship fell below the .05 level of significance once the variable long-lasting positive mood was entered into the model ($R = .09, ns$). Furthermore, the relationship between long-lasting positive mood and job satisfaction remained significant ($R = .25, p < .05$). One could interpret this as evidence for a mediation effect. The indices of fit suggest that the proposed model fit the data very well: $\chi^2_{(1, N=77)} = 0.21$ ($p = .65$), AGFI = .99, RMSEA = 0.0 (p (RMSEA < .05) = .68)

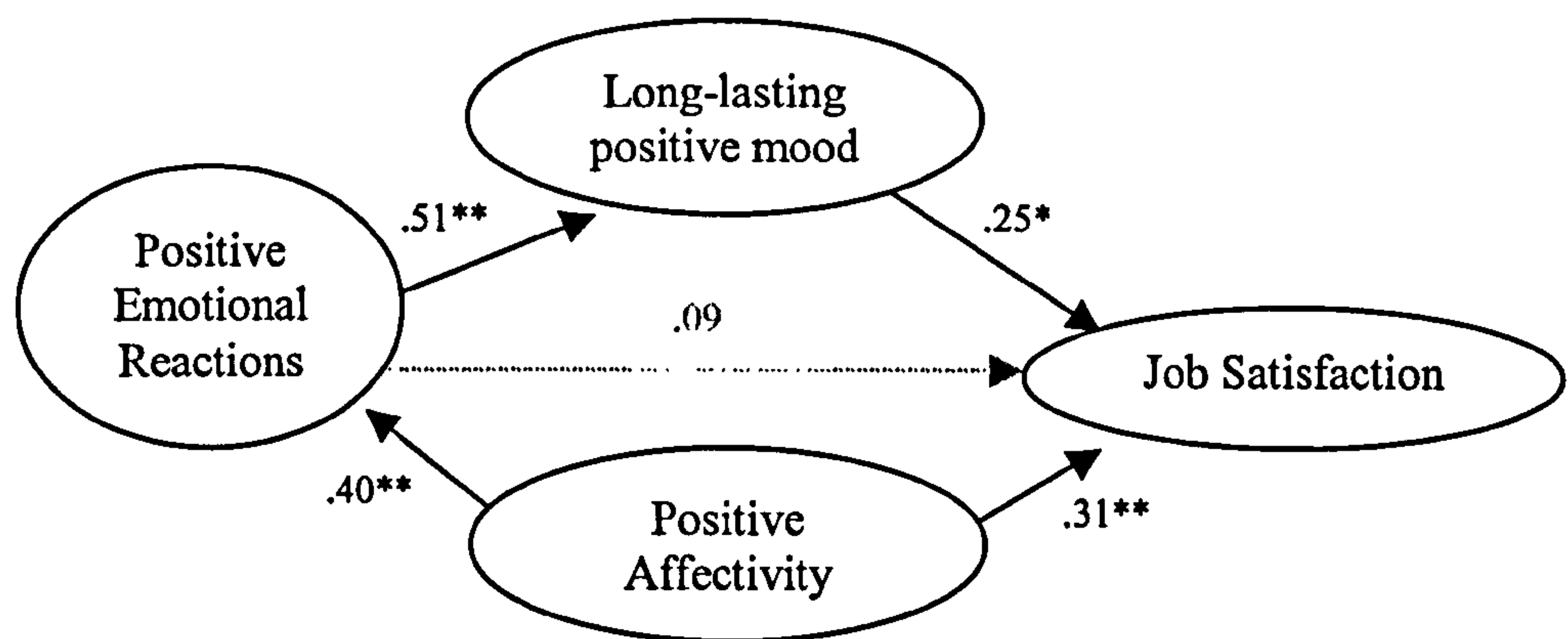


Figure 7.8. Results of the test of the Mediation Model for Job Satisfaction. Standardized Structural Coefficients. * = $p < .05$ ** = $p < .01$. Non-significant relationships are shaded.

As presented in Chapter 6, positive emotion intensity was positively and significantly correlated with organisational commitment, even after controlling for the effect of positive affectivity ($R = .29$, $p < .05$). As shown in Figure 7.9, this relationship fell below the .05 level of significance once the variable long-lasting positive mood was entered into the model ($R = .21$, ns), indicating that the relationship might have been (at least partly) mediated by this variable. However, in the model the relationship between long-lasting positive mood and organisational commitment also fell below the significance level ($R = .14$, ns). The indices of fit suggest that the proposed model fit the data very well: $\chi^2_{(1, N=77)} = 0.21$ ($p = .65$), AGFI = .99, RMSEA = 0.0 (p (RMSEA $< .05$) = .68).

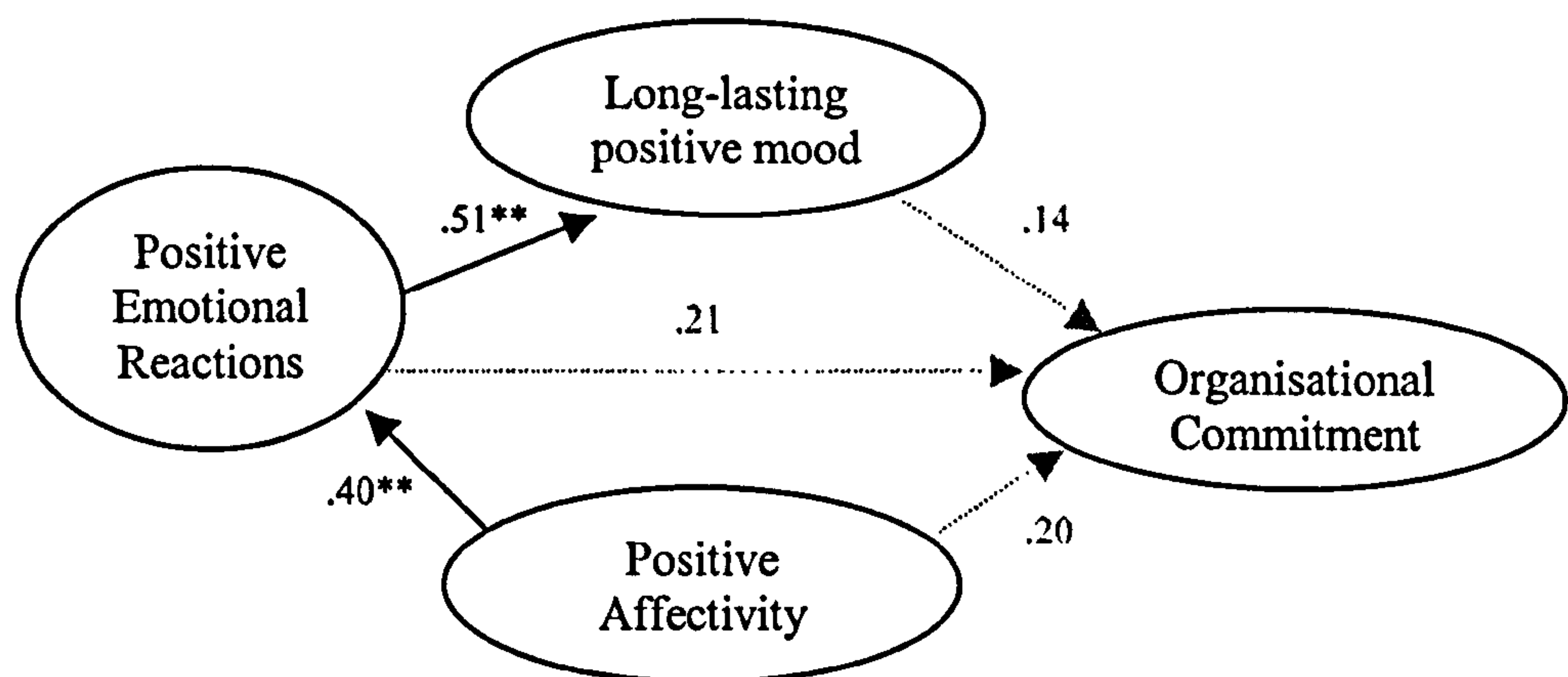


Figure 7.9. Results of the test of the Mediation Model for Organisational Commitment. Standardized Structural Coefficients. * = $p < .05$ ** = $p < .01$.

Non-significant relationships are shaded.

Overall, the mediation models that were tested are not 100% conclusive but they do suggest a possible mediation effect of long-lasting mood in the relationship between emotional experiences and work attitudes. This was particularly the case for job satisfaction, where introducing the positive mood variable into the model considerably weakened the relationship between emotions and attitude, whilst still remaining significantly associated to each of these two constructs.

So what exactly does this mediation effect mean? It would seem to indicate that the most intense positive emotional experiences have an impact on attitudes, but only where these emotions actually had a lasting impact on well-being throughout the day on which they were experienced. One could speculate that some emotional episodes, although intense at the time of reporting, only produced short-lived effects because some other – perhaps unpleasant – event at work cancelled out their impact on mood. As I will argue in a later chapter, there are a number of clues in the data presented in this thesis, and also in the literature, that would provide support for such an explanation; I will return to this discussion in Chapter 9.

7.3.3. Causality: Conclusions

Whilst perhaps none of the points I have made in this section taken alone provide conclusive proof of my inferred direction of causality, taken together they do seem to support the hypothesised direction, by going some way to meet the several conditions outlined above (see Kenny, 1975). It seems fairly realistic to conclude, beyond a reasonable doubt, that workers' temporary pleasant feelings as reactions to events at work (positive emotions) influence the way they feel about their work in general (work attitudes).

The key implication of this finding is that promoting the types of events at work that produce momentary positive emotions may be a legitimate way to foster longer-lasting positive work attitudes. As I have shown in this thesis, these momentary positive emotions do not seem to be affected by factors such as pay conditions, but rather they seem to be a function of having high quality social relationships at work, and having challenging and interesting work.

7.4. Conclusions

In this chapter, I have examined the role of positive emotions in the context of some of the antecedents and outcomes which I described in Chapters 5 and 6. I tested a model based on the Affective Events Theory (Weiss & Cropanzano, 1996), in which I demonstrated that positive emotions and attitudes are predictive of different types of organisational behaviours. Positive emotions were found to be better predictors than work attitudes of enhanced motivation, the desire to help at work and the likelihood of having creative or insightful thoughts. Work attitudes, on the other hand, were better predictors of the intention to quit. The implication of this is that by treating positive emotions at work and job satisfaction as equivalent constructs (as has been the case in much of the traditional literature) we risk losing valuable information about the specific predictive power of each of the two separate sets of constructs.

I further found that positive emotions and attitudes also differ in terms of their antecedents. Whilst I found some kinds of work features (those most obviously related to the types of events reported in this study) to be predictive of emotional experiences, other kinds were instead found to be more directly predictive of work attitudes. What this means is that some features of work (such as pay conditions) may help to foster committed employees, but to promote positive emotions (and their various beneficial performance-related outcomes) managers need to focus on those features of work that give rise to events on a day-to-day basis at work (in particular, the quality of social relationships and the extent to which the work is challenging and interesting)

In this chapter I have also made some effort to explore the issue of causality in the relationship between positive emotions and work attitudes. I have presented a number of arguments based on the data obtained in this thesis to support the view – posited by Weiss and Cropanzano (1996) – that positive emotions at work exert a causal influence on more stable work attitudes, such that we can conclude that by promoting momentary positive emotional experiences at work managers may be able foster more satisfied and committed employees in the longer run.

In the next two (final) chapters, I discuss the theoretical and practical implications of the various findings of this thesis, and will revisit some of the themes I have discussed in this chapter.

8. Towards an Understanding of The Benefits and The Causes of Positive Emotions at Work: Implications of the Findings

In this chapter I will discuss the findings of this thesis which relate directly to the outcomes and antecedents of positive emotional experiences at work, as presented in Chapters 4, 5 and 6. Given that this thesis is relatively exploratory in nature, a wide range of antecedent and outcome variables are considered. I will discuss what I believe are the main findings, and point out how they advance what (little) we already know about positive emotional experiences at work.

This chapter is divided into two sections. I begin by discussing how this thesis has served to uncover a wide range of beneficial outcomes of positive emotional experiences, which I will argue serves to highlight their importance and desirability in work settings. I then turn to consider how the findings help to advance our knowledge of how positive emotions arise in work settings, and our knowledge of the individual factors that influence their experience. As well as discussing the theoretical significance of the findings I will also, where appropriate, point towards some of their practical implications.

8.1. The Beneficial Effects of Positive Emotional Experiences at Work

I have decided to deal with the outcomes of positive emotional experiences before discussing their causes for a simple reason: if this thesis had not found any associations between care workers' experience of positive emotions and any outcomes that might be beneficial to either themselves or the organisation they work for, one could argue that there would be little reason to try to find ways to promote these experiences. Some authors have argued that perhaps one of the reasons why positive emotions at work have not been studied more often than they have might be the fact that managers have traditionally assumed these temporary states to be irrelevant to work or even something that gets in the way of effective work performance (Briner, 1999).

I hope that I have shown in this thesis that this is far from the case; the findings here suggest a number of desirable outcomes that result from care workers' positive emotional experiences on the job. In the short-term, they appear to be involved in boosting work motivation, prompting helping behaviours and giving rise to useful thoughts or insights about the job itself, as well as playing a role in the formation of self-esteem, sense of meaning and self-efficacy. They are also associated with longer-

lasting positive mood states and, in the longer run, they appear to be linked (at least indirectly) with fostering favourable attitudes towards the job and organisation.

Most of these outcomes emerged through exploratory work, based on the descriptions of the workers themselves regarding how their positive emotional experiences produced changes in their thoughts or behaviours. In Chapter 4 I borrowed from the existing literature to suggest ways in which positive emotions might have played a role in each of these processes. In this section, I will briefly summarise what this thesis can tell us about the role of positive emotions in relation to each of these constructs; as I will point out, it is likely that a fair amount of further work is needed to follow up some of these findings. I will also evaluate how desirable each outcome is likely to be, for both the individual in question and their employing organisation.

The only relationships which did not emerge through exploratory work – those that I set out to examine from the beginning of this thesis – were those between positive emotions and work attitudes (job satisfaction and organisational commitment). Given that I investigated these relationships in far more detail than the others, I have decided to discuss them under a separate section in the next chapter of this thesis (see section 9.1).

8.1.1. Positive Emotions and Motivational Processes

Care workers in the early phase of data collection reported that positive emotional experiences produced boosts in work motivation, and more specifically, they also motivated helping or caring behaviours towards clients (see Chapter 4). Later on in the second part of the study, the likelihood of these outcomes was found to be determined by the intensity of the positive emotional experiences; the more intense the experience, the more likely it was to provoke changes in motivation (see Chapter 6). Although most of the traditional research on work motivation has focused on the role of cold cognitive processes such as expectancies (Kanfer, 1992), the psychological literature suggests a number of ways in which positive emotions might be linked to motivation or behavioural intentions, which I outlined in Chapter 4.

As I have described, two different types of motivation outcomes were recorded; (a) a general measure of work motivation, and (b) a more specific measure of the desire to help or act in a caring way towards the client. How desirable are these emotionally-driven motivational changes likely to be for the worker and their organisation? Intuitively, one would imagine that any process which increases the workers' motivation to complete their work-related tasks would be welcomed by

managers. However, it is not entirely straightforward whether increasing a worker's desire to do more for their clients would be desirable for all parties involved. For the clients, it seems likely that receiving more care or more help would in most cases be welcome; for the workers themselves, these kinds of helping behaviours are thought to be associated with attempts to preserve their positive feeling state (see Isen & Baron, 1991) and / or foster their interpersonal relationships (see Fredrickson, 1998); to the employing organisation however, it is not clear how desirable this outcome might be. Providing extra help or extra care may also mean spending more time with each client, and possibly involve the care workers carrying out tasks that are beyond their job description. In recent years, to cope with the demands of a growing number of service users, public sector home care providers in the UK have often needed to impose relatively strict limits on the amount of time which a care worker can spend on each visit with each client. Therefore, it would seem that such helping behaviours would be desirable to the organisation as long as they do not interfere with the care worker's timetable. Judging from the data collected in this thesis, this would appear to raise an important issue for both the care workers and their organisation. In both diary studies that were conducted, social interactions with clients were reported as the most frequent situational antecedents of positive emotional experiences (as I will discuss below in section 8.2.1); in the qualitative diaries that were completed by the care workers (reported in Chapter 4), many participants also reported that they regretted not being able to spend more time engaging in these social interactions and providing extra help that went "beyond the call of duty" because they were limited by the amount of time which they were allocated to complete all the basic tasks listed in their job description. Intuitively, it seems likely that the carers' managers, in turn, would welcome the idea of their employees wanting to provide a more complete service, if they themselves were not limited by the resources needed to meet their own targets.

8.1.2. Positive Emotions and Self-Esteem

In the early phase of data collection, care workers reported outcomes of positive emotional experiences which seemed to map very closely onto the construct of self-esteem (see Chapter 4). As I described in Chapter 4, the literature has not always been conceptually clear about the precise relationship between positive emotions and self-esteem. In recent times, self-esteem has been defined as a state of self-evaluation, something akin to an attitude about oneself, which may be at least partly shaped by positive affective experiences (see Hewitt, 2002).

The likelihood of boosts in self-esteem being reported was found to be determined by the intensity of the positive emotional experiences (see Chapter 6); the more intense the experience, the greater the likelihood this outcome was reported. This suggests that positive emotions may potentially play an important role in the formation of self-esteem in care workers. Unfortunately, in the study I presented in Chapter 6, self-esteem was measured immediately following the emotional experience, so it was not possible to ascertain whether the change reported by the participants outlasted the positive emotional experience. It may be worth in future studies measuring self-esteem at separate points in time (and perhaps using different methods, as was done here in the measurement of work attitudes) to explore in more detail the role of positive emotional experiences at work in the formation of this construct. Intuitively, it would also seem likely that a consideration of both positive and negative experiences would be necessary to understand the contribution of emotional experiences to self-esteem.

Hewitt (2002) has argued that self-esteem can be considered a measure of well-being (at least in our western culture). Low self-esteem is associated with states of depression (Tennen & Affleck, 1993), whereas having high self-esteem is thought to provide benefits to those who possess it, for example in that they are able to cope effectively with challenges and negative feedback (see Heatherton & Wyland, 2003). Some researchers have additionally found that self-esteem may protect workers against the effects of negative emotional experiences at work (see Dewe, Cox, & Ferguson, 1993). All in all, it seems relatively clear that it is in the best interest of both the worker and their employing organisation to promote positive emotional experiences which foster self-esteem.

8.1.3. Positive Emotions and Sense of Meaning

Care workers in the early phase of data collection reported outcomes of positive emotional experiences which seemed to map closely onto a construct referred to in the literature as a sense of meaning, as I reported in Chapter 4. In that chapter I also suggested ways in which positive emotional experiences might contribute towards finding a sense of meaning in work.

In Chapter 6, I showed that the likelihood of this outcome was determined by the intensity of the positive emotional experiences, suggesting that positive emotions may play a role in finding meaning in work. However, in that chapter I also argued that the sense of meaning construct may overlap with another, more work-related version of this construct: seeing one's job as a calling (Wrzesniewski et al. 1997). In

Chapter 5 I argued that this kind of construct can, in turn, *predict* the experience of positive emotions. In other words, these closely overlapping constructs might be seen as both a cause *and* an effect of positive emotional experiences.

This raises an important issue here. It suggests that the relationships between temporary emotional experiences and other, more stable psychological phenomena need to be considered in some depth before inferences of directionality can be made. To expect simple cause-effect relationships between (positive) emotions and the formation of meaning may underestimate the dynamic and complex nature of both constructs (see Baumeister & Vohs, 2002; Parkinson, 1995). Whilst it may be true that we construct meaning on the basis of emotional experiences (Baumeister & Vohs, 2002), the reverse is also true: appraisal theory suggests that emotional reactions may be largely determined by the personal meaning which an event has for the individual (e.g. Lazarus, 1991). Simply looking for cause-effect relationships using quantitative methods may therefore not suffice. Perhaps qualitative methods, such as emotional narratives, would be the best place to start if we wish to improve our understanding of precisely how (positive) emotional experiences acquire meaning, and how the meaning we attach to things affects how we react to them emotionally (see Baumeister & Newman, 1994; Baumeister, Stillwell & Heatherton, 1995; Lazarus, 1999). As such, an extended version of the preliminary qualitative diary study carried out here might represent the next port of call for research on this topic.

How desirable is a sense of meaning for the individual worker and for their employing organisation? Some have argued that finding meaning in a job may itself contribute to work attitudes such as job satisfaction (Sandelands & Boudens, 2000; Wrzesniewski, Dutton & Debebe, 2003). There is also other evidence (albeit somewhat indirect) to suggest that this outcome might be beneficial to the individual and their organisation. Experimental studies for example, where participants take part in short writing sessions in which they are asked to reflect on their purpose in life, or find meaning in events that have occurred to them, have shown that meaning-making is linked with heightened immune system functioning (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), fewer physical illnesses (Pennebaker & Beall, 1986) and improved academic performance (Pennebaker, Colder & Sharp, 1990). Ryff and Singer (1998), on the other hand, argue that having meaning or purpose in life is not merely a contributor to, but in fact a defining feature of positive mental health in its own right. It seems that if positive emotional experiences play a role in this process – as suggested by the findings of this thesis – their presence in work settings is beneficial and desirable for both the worker and their employing organisation.

8.1.4. Positive Emotions and Creative Insights

Care workers in the early phase of data collection reported that positive emotional experiences gave rise to useful thoughts or insights about the job (see Chapter 4). In Chapter 4 I argued that the idea that positive emotions might be linked to insightful patterns of thought is consistent with Fredrickson's (1998) theory of positive emotions, and a growing body of experimental evidence (e.g. Isen, 1987; Ashby, Isen, & Turken, 1999).

The likelihood of this outcome was later found to be determined by the intensity of the positive emotional experiences; the more intense the experience, the more likely the care worker was to report insightful or creative thoughts (see Chapter 6). An implication of this finding is that positive emotional experiences may play an important role in creativity and innovation in work settings. These are concepts that have received a lot of attention in organisational research in recent years (Clegg, 1999; West, 1997), with one journal, *Creativity and Innovation Management*, dedicated exclusively to the subject.

The findings from this thesis suggest that these kinds of beneficial effects are not necessarily confined to workers for whom creativity is paramount to their job, such as musicians, artists, advertisers, etc.; they may play a role in all kinds of occupations, including care work. This could represent, therefore, a potential important avenue for future research into positive emotional experiences at work. It seems that future work on creativity and innovation in organisational settings might benefit from paying closer attention to the role of momentary positive emotional experiences in these processes (see also Fredrickson, 2000b).

8.1.5. Positive Emotions and Self-Efficacy

In the early phase of data collection, care workers reported that positive emotional experiences gave them extra confidence in their abilities to do the job, a description which seems to overlap rather closely with the construct of self-efficacy (see Chapter 4). The likelihood of this outcome was later found to be determined by the intensity of the positive emotional experiences (see Chapter 6); the more intense the experience, the more likely it was to be accompanied by a sense of self-efficacy.

This is not the first study to suggest that positive emotional experiences and self-efficacy might be linked; some researchers have proposed specific pathways through which positive emotions may foster an individual's self-efficacy (Pekrun et al. 2002),

as I described in Chapter 4. A key distinguishing feature between these two constructs is that a state of self-efficacy should last beyond the pleasant momentary emotional state. In this thesis, a surrogate measure of self-efficacy was taken immediately following the positive emotional experience, so it not possible to ascertain whether the change in this variable lasted longer than the emotional experience itself. In future studies, it may be worthwhile investigating this relationship in more detail, for example, by measuring self-efficacy at several points during the day, and examining its fluctuations in relation to different positive emotional experiences throughout the day. If positive emotions could be shown to be a causal factor, this would improve our understanding of how self-efficacy is formed. Having said this, it seems unlikely that the relationship between the two constructs is all one-way traffic; just as self-efficacy helps to improve performance, this performance might in turn lead to future positive emotional experiences. As with some of the other constructs I have discussed in this section, positive emotions seem to be closely intertwined with self-efficacy, and expecting to find simple cause-effect relationships may be unrealistic. Again, it may be that using qualitative methods to capture emotional experiences may be more informative for improving our understanding of these relationships (see e.g. Lazarus, 1999).

The beneficial effects of self-efficacy are well-documented. Self-efficacy has been described as being an important marker of individual well-being (Maddux, 2002). Expectancies of low self-efficacy have been found to be common in states of depression (Bandura, 1997; Maddux & Meier, 1995), and high self-efficacy is linked with healthy behaviours and the cessation of unhealthy behaviours (Bandura, 1997; O'Leary & Brown, 1995). Studies have also found high self-efficacy to be linked with work-relevant outcomes such as goal-setting and commitment (Latham, Locke, & Fassina, 2000), translating strategic knowledge into improved performance (Cervone, 1993), and persistence in the face of setbacks (Schaefer, Epperson, & Nauta, 1997). It seems, therefore, that the role that positive emotions play in fostering workers' self-efficacy is likely to be highly desirable for organisation and employee alike.

8.1.6. Positive Emotions and Long-lasting Positive Mood

Care workers in the early phase of data collection reported that positive emotional experiences often resulted in positive moods which lasted throughout the day, and in recurring thoughts about the positive event; they also reported behavioural markers of

this positive mood, such as smiling (see Chapter 4)²¹. The likelihood of each of these individual outcomes was later found to be determined by the intensity of its preceding positive emotional experience (see Chapter 6); the more intense the experience, the greater the likelihood that they were reported as outcomes. One could speculate that there may be some kind of ‘threshold-effect’ whereby only emotional experiences which reach a certain level of intensity would be likely to have a lasting impact on well-being. In any case, the literature suggests a number of ways in which positive emotional experiences may have long-lasting effects on mood, as I described in Chapter 4.

How desirable are positive moods in organisations? It seems likely that positive moods would have some of the same beneficial effects which I have ascribed to positive emotional experiences. Positive moods – and indeed the positive emotions which offset them – are argued to constitute markers of well-being in their own right (Diener & Larsen, 1993) and markers of subjective quality of work-life (Ashforth & Humphrey, 1995; George & Brief, 1996). Although some of the motivational processes outlined above may apply to positive emotions rather than positive moods (since moods are less predictive of specific behaviours – Morris, 1989), many of the other outcomes, such as self-efficacy and self-esteem are likely to be enhanced by positive moods as well as emotions (see Baron, 1990; Hewitt, 2002).

The findings of this thesis also suggest that positive mood at work has a longer-term significance. In Chapter 7, when exploring the issue of causality in the relationship between positive emotions and work attitudes, I proposed that the possible long-lasting effects of positive emotional experiences on mood might act as a mediating factor in this relationship, such that a positive emotional experience would only influence long-term attitudes if its effects lasted throughout the day. As I suggested above, some positive emotional experiences may not be intense enough to have a lasting impact on mood. Alternatively, as I suggested in Chapter 7, the impact of some positive emotions may be interrupted, for example by an intervening negative emotional experience.

A model specifying this mediation effect of mood was tested for both work attitudes (job satisfaction and organisational commitment) and the findings generally supported this proposition. The implications of this are important, because they suggest that it is not enough to study positive emotional experiences as isolated

²¹ Although these three outcomes seem to be intuitively interlinked (which is why I have decided to deal with them under the same heading), and indeed they were inter-correlated (see Chapter 6), a composite combined scale of the three was found to have an unacceptably low internal consistency so they were dealt with individually in the analyses.

incidents; rather we need to look at the ‘bigger picture’, to examine how the ebb and flow of both positive and negative emotional experiences contributes to mood throughout the day and over time. I will elaborate on this point in the next chapter.

8.1.7. On the Precise Role of Positive Emotions: Conclusions

In this section I have discussed how momentary positive emotional experiences at work may contribute towards a number of longer-lasting outcomes which, I have also argued, are likely in the vast majority of cases to be desirable to both the individual worker who experiences them and to their employing organisation. Even if in some cases positive emotional experiences may occasionally interfere with efficient work performance, they may also – as I have argued – help to contribute towards efficient task completion, for example through providing insights into ways of improving performance, or by fostering people’s beliefs in what they can achieve. Aside from these organisational benefits, positive emotional experiences at work and their correlates constitute important markers of subjective well-being and quality of work-life, which makes them desirable states in their own right (Ashforth & Humphrey, 1995; Briner, 1999; George & Brief, 1996). Overall, I believe the findings of this thesis provide sufficient evidence to support the beneficial value of positive emotional experiences at work, and the importance of trying to harness these kinds of experiences.

Many of the relationships that were observed and which I have just outlined resulted from exploratory work, which was at times data-driven rather than theory-driven (given the current need for a relatively bottom-up approach to the study of emotions at work; Briner, 1999). With the exception of the relationship between positive emotions and attitudes (which I will discuss in the next chapter), the remaining outcomes emerged from the exploratory work that was conducted here. As a result, less specific attention was dedicated to each of these outcomes, and the design that was adopted (whereby they were measured simultaneously) does not permit cast-iron causal inferences to be made.

Although perhaps not to a degree that rules out other possible explanations altogether, the data does suggest that the likelihood that the various outcomes were reported was dependent on the positive emotional experience itself, and would probably not be better explained by other variables. In what way do they suggest this? Firstly, with the exception of the long-term attitudes (which I set out to investigate from the beginning of the thesis), all other outcomes were self-reported attributions of the consequences of the emotional experiences made by the workers

themselves shortly after each emotional event. The assumption that these attributions are accurate is based on theories which state that people form 'mental models' about their emotional experiences, which may include information about some of the consequences of these emotional experiences (Power & Dalgleish, 1997; see also Appendix E); furthermore, the fact that these attributions were measured in real-time would have been likely to maximise their accuracy.

Secondly, the proposed association between positive emotions and outcomes was determined by the intensity of each emotional experience. In other words, the evidence that these outcomes were related to positive emotional experiences is not simply reliant on the fact that participants perceived them as being related; the likelihood that these outcomes were reported depended on the intensity of these experiences. The more intense the experience, the more likely each of these outcomes were to be reported.

Lastly, and very importantly, the results of the multi-level analyses presented in Chapter 6 suggest that the vast majority of the variance in each outcome was accounted for by situational factors rather than individual ones; it was not simply a case of certain individuals being more likely than others to report, for instance, boosts in work motivation or long-lasting positive mood effects in each diary entry (as a result of being somehow predisposed to these outcomes). Rather it was much more likely that the situation (perhaps the experience of the emotion) determined the likelihood that they were reported. Of course, it may have been another aspect of the situation (perhaps the event itself) rather than the emotional experience *per se*, that causally predicted the likelihood of the outcome, but at least this finding discounts the possibility that dispositional variables accounted for the shared variance.

In any case, whilst causality cannot be conclusively demonstrated, at this early stage in theorising about the role of positive emotional experiences at work, documentation of the strength of relationships existing between these variables (based on real-time assessments) along with the potential explanations of these relationships which I have provided (see Chapter 4), seems a useful contribution.

Also, it is important to point out also that to expect simple uni-directional effects may be oversimplifying the matter. As I have argued in this chapter, although positive emotional experiences may play a causal role in fostering some of these outcomes (e.g. self-efficacy, sense of meaning, etc.), these outcomes may also in turn influence the future experience of positive emotions. This seems to tie in with a point made by Barbara Fredrickson, who has argued that positive emotions may have 'upward spiral effects' (see Fredrickson, 2002; Fredrickson & Joiner, 2002). As described in Chapter 1, Fredrickson (1998) has proposed a theory of positive

emotions which suggests that the experience of these may help the individual to build intellectual and social resources in the long-term, which in turn predict the future occurrence of positive emotions. Fredrickson's (2002) suggests an example of how this might happen: an individual, having achieved an important goal, experiences a positive emotional experience described as pride. This emotional state leads them to envisage future achievements and to develop long-term plans and goals; the successful achievement of these goals might, in turn, lead to further positive emotional experiences. This principle, besides making sense intuitively, is backed by empirical evidence (see Fredrickson & Joiner, 2002; Stein, Folkman, Trabasso & Richards, 1997). It seems feasible that a similar kind of upward spiral effect might apply to some of the relationships I have discussed in this chapter. For instance, a care worker who repeatedly experiences positive emotions at work which result from seeing the difference they make to their clients' lives, might increasingly tend to find or to see meaning in their work. This, coupled with the care worker's perception of being able to successfully handle social interactions with their clients might further lead the worker to believe that their work is a calling or vocation (something they were 'put on this earth to do'). This, in turn, might influence how much they enjoy their work on future occasions (see Chapter 5).

It seems likely, therefore, that a greater depth of analysis is required to explore the precise role of positive emotions in relation to each of these variables, for example, involving measurements at separate points in time and using different methods of data collection. Also very important is the issue of scales; in the quantitative diaries used in this thesis I adopted non-validated 1-item surrogate measures (based on the workers' own previous descriptions) of each of the various outcomes I have discussed above, to keep the diaries short and simple. To follow up any of the findings observed here would probably benefit from a more systematic approach, using previously validated measures of the various constructs I have referred to.

With regards to understanding the *processes* that underpin the relationship between positive emotions and some of these phenomena, I have argued in this section that given the complex and dynamic nature of emotions (see Frijda, 1993; Parkinson, 1995), theory building may benefit from further use of qualitative methods, such as emotional narratives (see Baumeister & Newman, 1994; Baumeister, Stillwell & Heatherton, 1995; Lazarus, 1999). Qualitative methods may help to place more emphasis on the experience of the individual worker, and on understanding, for instance, precisely *how* positive emotional experiences acquire meaning or *how* they foster self-efficacy, and so on. I believe it is important to identify the precise role which positive emotions play in each of these processes: the

better our understanding of these processes, the more informed the interventions which we design to promote positive emotional experiences in workplaces will be.

I hope that the findings of this thesis will help to pave the way for more research on the outcomes of positive emotional experiences in work settings, along the lines I have suggested above. Similar exploratory work in other occupations might also help to unveil further important roles which positive emotions, as momentary states, play in work settings.

8.2. Towards an Understanding of the Causes of Positive Emotional Experience at Work

Having decided that positive emotions at work are desirable, the next obvious question would be: how do we go about harnessing these positive emotional experiences in work settings? How might the findings from the present thesis help us to do this? What do the findings tell us about how positive emotional experiences arise in care work settings? As I pointed out in Chapter 1, (positive) emotional experiences are thought to be a function of both situational and individual factors. One of the aims of this thesis was to build a framework, based on exploratory work, of the types of situational and individual antecedents that predict the experience of positive emotions in care work for the elderly.

In this section, I will begin by discussing what the findings from this thesis can tell us about the situations or events in a care worker's day at work where positive emotional experiences are likely to occur, and in particular, about the events which are associated with intense positive emotional experiences – as I have discussed in the previous section, the more intense the experience, the more likely it is to give rise to a range of desirable outcomes. I will try to frame this discussion in the context of what we already know from the literature on the antecedents of job satisfaction, which as I argued in Chapter 1, is the closest thing we have to a literature on positive emotional experiences at work.

Having done this, I will discuss what the findings from this thesis tell us about the individual factors which contribute towards positive emotional experiences at work. Finally, I conclude the section by arguing that the most useful approach to applying these findings would involve combining our knowledge of both the situational and individual antecedents of positive emotional experiences, given that these experiences tend to result from an interaction of the two.

As in the previous section, many of the findings which I report here were the result of exploratory work, and so besides providing a number of immediate

theoretical and practical contributions, they also suggest a number of possible avenues for future work in this area.

8.2.1. *Social Interactions*

Most traditional attempts to isolate the situational antecedents of positive affective experience have tended to focus on the role of stable job characteristics, such as autonomy, opportunity for skill use, etc. (see Spector, 1996). However, in this thesis, the unit of analysis was instead the discrete work *events* (or sets of events) which act as proximal causes of emotions, as highlighted by most contemporary theories of emotions (see e.g. Frijda, 1993), and by some recent theories of workplace emotion (e.g. Weiss & Cropanzano, 1996).

The findings of this study reveal that by far the most commonly elicited causes of positive emotions in home care workers were events that involved social interactions with clients. Furthermore, these types of events were also predictive of higher intensity scores on a number of different positive emotion words. The analyses conducted in Chapter 7 further suggest that it was only positive emotional experiences, and *not* attitudes, that were likely to be directly predicted by this aspect of care work (any effect of social interactions on attitudes appeared to be mediated by the emotional experiences). Clearly therefore, social interactions with clients play a central role in home care workers' lives at work; they cause these workers to experience pleasant emotional states, which turn affects their thoughts, behaviours and attitudes towards the job.

But is this finding likely to apply exclusively to highly client-facing jobs (such as care work) where social contact is continuous? It seems unlikely. Research in more general (less applied) areas of psychology has found that events that relate to social relationships and social interactions overwhelmingly constitute the most common antecedents of people's emotions (Kemper, 1978; Shaver, Wu, & Schwartz, 1992); Clark and Watson (1988) reported that social interactions tended to be especially predictive of *positive* affective states. To this effect, Parkinson (1996) has argued that, "probably the most important objects in anyone's environment are other people. The things that people do and say are typically the things that affect us most, especially if we are involved in some kind of established relationship with them (whether affiliative or antagonistic)" (p. 664). Parkinson (1996) goes on to argue that this fact has been largely overlooked by much of the traditional psychological research into emotion (Parkinson 1996). Most jobs involve a certain amount of social

contact, so to the extent that they do it therefore seems likely that these findings will also apply to them.

But what about the existing literature on the situational antecedents of emotional experience at work? As I have described above, this literature tends to consist of frameworks of stable and abstract work environment features. To what extent then is the importance of social interactions reflected in these traditional frameworks? How much importance is given to this feature of work? It seems that an answer to this could be *some, but perhaps not enough*. Early motivational approach models such as that of Herzberg, Mausner and Snyderman (1959) and Hackman and Oldham (1980) pay very little attention to this aspect of work. Some other models, such as Karasek and Theorell's (1990) Demand-Control-Support Model, do acknowledge the role of social interactions in the form of social support, arguing that support from managers or co-workers can buffer the effects of other strain-inducing job factors (see also Warr, 1987). However, it seems unlikely that every kind of social interaction event that was recorded in this study would necessarily be defined as example of social support. A closer look at the types of event within the social interaction factor reveals that, for example, on a number of occasions it was the act of helping another individual that produced a pleasant feeling (in other words, *providing* rather than receiving support was beneficial to the worker).

The findings from this thesis suggest that researchers need to become more aware of the role of day-to-day social interactions at work to fully understand the relationship between work and the individual worker. It seems that this aspect of work, although not necessarily always intrinsic to the content of the job itself, plays a key role in determining workers' behaviours and attitudes towards the job. Furthermore, I would point out that the level of analysis which was adopted in this thesis to document the relationship between social interactions and positive emotional experiences probably only represents the 'tip of the iceberg'. Parkinson (1996) has argued that we should try to include a social psychological level of analysis in our theories of emotion, suggesting that we go beyond looking at emotions as purely internal or intrapsychic processes. He argues that emotions often play a larger social role, and that it is useful to view them as forms of communication which we use to transmit to other people our evaluations of a particular event, situation or also the course of a particular social interaction. These signals may, in turn, elicit reciprocal emotions from other people. An examination of the results obtained in this thesis reveal some indirect evidence for this kind of effect. For instance, one of the types of social interaction event which were reported by care workers as a cause of positive emotions was observing how pleased their client

looked to see them arrive through the door (see Chapters 4 and 5). Parkinson (1996) points out that emotions may even be transmitted from one person to another without any specific interpretation of transmitted signals. Citing evidence from a study by Hatfield, Cacioppo and Rapson (1992), he argues that expressive behaviours may be mimicked automatically, and the copied responses may directly contribute to the self-perception of emotion via facial and bodily feedback. In other words, there may be an automatic tendency to catch the mood or emotions of the person with whom you are interacting. In recent years, some researchers have begun to study processes such as emotion contagion and mood linkage in work contexts (see e.g. Totterdell, Kellet, Teuchman & Briner, 1998; Totterdell, 2000). Although this level of analysis goes beyond the scope of the current thesis, I believe it may represent a valuable avenue for further study and understanding of the causation of positive emotions at work.

For this thesis, the level of analysis that was adopted was sufficient for addressing the aims that were set out, but it is nonetheless worth bearing in mind that the relationship between social interactions and positive emotions is unlikely to be a simple case of cause and effect. Social interactions may produce positive emotions, but likewise, positive emotions may help to guide the course of social interactions. The vital message, nonetheless, is that social interactions appear to be a vital source of positive emotional experiences at work, something that does not appear to receive enough emphasis in most existing frameworks of the antecedents of emotions and emotional well-being at work.

8.2.2. Task Performance

The findings of the current thesis also suggest that not all positive emotional experiences at work are social in nature; some would appear to serve a more personal function. After social interactions, the next most common causes of positive emotional experiences were related to the tasks which the care workers perform during their working day. The multi-level analyses revealed that the reporting of these types of events was associated with higher ratings on a number of positive emotion words.

The idea that people may experience pleasant emotional states whilst being immersed in a task is not a new one. It is captured in Csikszentmihalyi's construct of *flow* (e.g. Csikszentmihalyi, 1992), which is described as a state of being completely absorbed in a task or activity where demand and skill are appraised as being fairly evenly matched, and is said to result in positive feelings. Although Csikszentmihalyi has argued that these kinds of experiences are very important in work situations

(Csikszentmihalyi & LeFevre, 1989), this idea has not generated as much research within organisational psychology as it might have, perhaps among other things because – like positive emotional states in general – it is hard to study them. Also consistent with this, some of the traditional frameworks of work design highlight the idea of skill use being related to favourable affective outcomes (see e.g. Hackman & Oldham, 1980). It seems that in care work this effect may be particularly relevant when the care workers are performing the kinds of tasks which were traditional reserved for health care professionals such as district nurses – which may include administering eye drops and applying catheter or stoma bags – and which are increasingly becoming a part of the home care worker's job description (see e.g. Rummery & Coleman, 2003).

Aside from the positive emotions that carrying out a task may induce, there is also a literature to support the effect of task *completion* on emotional outcomes; many theoretical accounts of positive emotions highlight the importance of goal achievement (e.g. Carver & Scheier, 1990; Power & Dalgleish, 1997). More specifically, the positive emotions which follow the completion of a goal are thought to be the result of the individual's appraisal of the causes of successful goal achievement (Weiner, 1994), and the intensity of the emotion is likely to depend on the individual's investment in that goal (Power & Dalgleish, 1997). Clearly, short-term goals such as completing a daily routine task at work are likely to evoke less intense emotions than completing a long-term goal such as achieving a qualification or promotion, but the findings here suggest that these events can nonetheless contribute to positive emotional experiences in the workplace on a day-to-day basis.

All in all, these findings are fairly consistent with what we already know from existing frameworks of job design (e.g. Hackman & Oldham, 1980): they suggest that work tasks can be a valuable source of positive emotional experiences, particularly when they require the workers to use their skills. In very recent times, some experience sampling studies have sought to examine in more detail, through a consideration of within-person variability, the relationship between tasks, emotions and motivation. For example, Fisher & Noble (2004) examined the role of a range of variables: task difficulty, task interest, task effort and skill. They found that emotional states during task performance depend very much on perceived skill, interest and effort. Overall, their findings suggest a number of complex mediation mechanisms. For instance, the effects of these variables on positive emotions were usually mediated through performance; when performance was controlled for, the effect of skill and effort on emotions became negative, suggesting that it is only

pleasant to be skilled or to exert effort when accompanying improvements in performance are perceived.

It seems therefore that to improve our understanding of how tasks may be linked to positive emotional states it may be necessary in future studies to adopt a more in-depth approach. For this thesis, the level of analysis that was adopted was sufficient for addressing the aims that were set out, but it is important to be aware that the relationship between tasks and positive emotions is likely to be mediated by a number of variables which may fluctuate *within* individuals as much as they vary between them (see Fisher & Noble, 2004).

8.2.3. Positive Emotion-Inducing Events: Practical Implications

The findings I have just presented suggest that social interactions and, to a lesser extent, task performance comprise the most important situational antecedents of positive emotional experiences in care workers for the elderly. I now will briefly review some of the most commonly reported types of these events, and point out how knowledge of these may help to guide interventions which help to harness positive emotional experiences.

The most common of type of social interaction events were those where the client *explicitly* showed their appreciation for the care worker's efforts; events where the care worker was thanked by the client's *relatives* were also reported on a number of occasions. Events that contained *implicit* appreciation of the care worker, for example where the client appeared to be pleased to see the care worker when they arrived, were also often reported. It is interesting to note that in all such occasions it was the client or their relatives that provided this kind of recognition, rather than a supervisor or colleague, reflecting the overwhelmingly client-facing nature of care work. The findings therefore show how important it is for a care worker to have their work explicitly valued and appreciated, even if in a non-financial sense. Managers should be aware of this, and bear it in mind when considering how to get the best out of their workers.

Another very important source of positive emotions in care workers was chatting or joking around with a client. An example event from the qualitative diaries was "A client told me about a particularly funny experience she had during the day". Although this type of event is not likely to be directly relevant to the tasks listed on a care worker's care plan (and may be therefore seen to potentially interfere with these tasks) it is clearly an integral part of care work, and one of the most positive aspects of the job for the workers themselves. Even if this kind of positive emotional

experience (and the desire to help further which it may provoke) might be seen as a threat to the efficient completion of a care worker's tasks in the short periods of time which they are allocated on each visit to a client, managers must understand the vital importance of such experiences, and make appropriate efforts to allow time for such exchanges in the care worker's schedule. Failure to allow for the possibility of these kinds of interactions by keeping care worker's visits short and resource-efficient may actually result in eliminating one of the most attractive aspects of care work and eventually devaluing the profession.

In many cases, the aspect of these social interactions which made the workers feel good was the simple act of being able to help their clients, in a general sense and also in the sense of being able to cheer them up when they were distressed. Again, although this aspect of care might sometimes not be as tangible as the kinds of tasks which tend to be listed on a care worker's care plan (e.g. getting the clients dressed, giving them a bath or shower, house cleaning, etc.), it is clearly very important one, as much for the care worker as it is for their clients. As argued above, this is something that managers need to be aware of. For home care work to be enjoyable to the carer, the 'care' aspect is crucial and needs to be emphasised in the workers' job description, and not superseded by the practical and more tangible elements of the job.

A particularly striking example of a positive emotion-inducing social interaction was represented by the event category *making a client feel special or 'young again'*. A specific example was captured in the following description: "I washed a 97 year-old's hair and put it in rollers, I made it look really nice". This thesis suggests that events such as these, aside from entailing possible benefits for the clients themselves, also have a largely beneficial effect on the care workers, and as such constitute an important and attractive aspect of the job.

The results also show that the successful completion of a task was particularly often elicited as a cause of positive emotion, but that it was not just the completion of a task that was enjoyable, the notion of applying skills was also important. As I described in Chapter 3 of this thesis, due to recent changes in the way that social and health care services are operated (see e.g. Rummery & Coleman, 2003), home care workers have increasingly seen themselves taking over more health-related care work, including nursing tasks (such as such as administering eye drops and applying catheter or stoma bags). The findings of this thesis suggest that care workers enjoy carrying out these types of tasks, apparently because it provides an opportunity for them to apply skills. This is clearly something to be taken into account by home care

providing organisations when (re)designing the job descriptions of care workers; I will return to this point again in a moment.

8.2.4. Other Events

A smaller number of other types of events besides the ones I have just outlined were also reported by care workers as sources of positive emotional experiences at work; for example, *meeting up with a colleague* or *meeting a new client*. For reasons which I outlined in Chapter 5, I decided not to include these in the analyses which I have presented in this thesis. However, using related measures of work environment features (rather than of these events *per se*), in Chapter 7 I showed that the *quality of social relationships with colleagues* and *having challenging and interesting work*, each of which might arguably be seen as roughly corresponding to (or overlapping with) these two types of events, were predictive of positive emotional experiences over a two-week period. In other words, these types of events may be important (albeit less frequent) causes of positive emotions at, and their associated outcomes.

These findings draw attention once again to the importance of social interactions as source of positive emotional experiences at work, and indicate that in care work, pleasant social interactions with colleagues, although considerably less frequent than those with clients, are also a valuable and important aspect of the job on a day-to-day basis. To harness this effect, managers might do well ensure as far as possible that home carers (who differ from many other workers in that they do not work from a stable base or office) have plenty of contact with their co-workers.

The findings also suggest a way in which job variety (long assumed to be linked with favourable affective outcomes at work – see Hackman and Oldham, 1980) might produce positive emotions on a day-to-day basis, for example by giving rise to events such as meeting new clients. This seems to be an intrinsic aspect of the home care worker's job which many of these workers enjoy.

8.2.5. Work Events and Work Environment Characteristics

A somewhat novel aspect of this thesis was to examine the situational antecedents of positive emotional experiences at work by focusing on the role of events rather than stable features of the work environment, an approach which has characterised much of the traditional research on affect at work. This focus on discrete events is, as I argued in Chapter 1, more in line with contemporary theories of emotion. Weiss and Cropanzano's (1996) Affective Events Theory suggests that events are related to the

stable work characteristics which feature in many traditional frameworks (e.g. Hackman & Oldham, 1980) in the sense that the latter may predispose the occurrence of the former. Weiss and Cropanzano argue that environmental features influence emotions “primarily by making affective events (or the recall or imagination of affective events) more or less likely” (p. 11).

To evaluate this proposition I decided to examine whether the types of event reported in the diaries were associated with the work features reported in the questionnaires which were deemed most similar or equivalent (see Chapter 5). The expected effect was only partly supported by the data. Participants who gave high ratings on items that implied opportunities for favourable social relationships with clients did not necessarily report more social interaction events of this type (In Chapter 5 I speculated about this failure to find a relationship), although they did go on to report more intense positive emotions. However, participants who reported that their work was challenging and interesting also reported more positive events which involved applying skills or completing a task. These findings therefore only partly support the Affective Events Theory’s proposition.

In any case, it seems that the focus on events that was adopted in this thesis helped to ascertain what the proximal causes of positive emotional experiences in care work are. Although many different features of work may influence worker’s evaluations or attitudes about their job, only certain features appear to influence their positive emotional experiences through the occurrence of events on a day-to-day basis. I return to this point in the next chapter. Next, I turn to deal with the person level factors which were found to influence the positive emotional experiences of care workers.

8.2.6. Positive Trait Affectivity

Given that the experience of emotions is thought to be dependent on the appraisal of an event (e.g. Lazarus, 1991), rather than simply the event *per se*, in Chapter 1 I argued that a number of individual factors might influence this appraisal process. As I pointed out, increasing our knowledge about the roles of these types of person-level factors is likely to be as important as knowing about the events themselves.

In Chapter 5, I examined the impact of several such factors on the positive emotional experiences that were reported by care workers. The most influential person level antecedent positive trait affectivity, which positively predicted the intensity with which all but one of the positive emotions was experienced. This finding is consistent with previous work on the experience of real time positive affect

(Fisher 2002; Grandey, Tam & Brauburger, 2002). Does this mean that people with high trait positive affectivity respond more intensely to positive events than people with lower levels of the same trait? Larsen and Katelaar (1991) found that people high in positive affectivity exhibited higher levels of emotional reactivity to a standard mood induction procedure. There is an alternative explanation, however. As Clark and Watson (1988) have pointed out, it may also be the case that people high in positive affectivity actively seek out or attract situations which are likely to invoke intense positive emotions. This suggests that the relationship between situational (events) and individual (dispositions) factors is unlikely to be characterised by a simple interaction, but rather a two-way *transaction*, a point I will return to in a moment and again in Chapter 9.

In any case, an implication of this finding is that some people are dispositionally more likely than others to experience intense positive emotions and the benefits associated with these. However, as I will now review, people have more than just a *general* predisposition to experience positive emotions: they also appear to be predisposed to these experiences as a function of more specific work-related needs and orientations.

8.2.7. Needs and Orientations

The analyses presented in Chapter 5 revealed that the next most influential person level variable after positive affectivity was the need for affiliation. Furthermore, it tended to predict the same emotions that were also predicted by social interactions (a point I will return to in a moment). As with positive affectivity, it may be that care workers for whom affiliation is important react more strongly to the same social interaction events than those for whom it is less important, or that conversely, as a function of their disposition, the former are more likely to become involved in intense positive emotion-inducing social interactions than the latter. The need for achievement in care workers was related to the experience of one positive emotion, which was in turn also predicted by the task-related events. In other words, those care workers for whom performance and achievement were important were likely to experience more intense positive emotional experiences whilst carrying out or after completing tasks which gave them an opportunity to use their skills, which makes intuitive sense (I will return to this point again in a moment). The need for dominance, or need for power as it also referred to, predicted lower intensity ratings on some emotion terms; as I pointed out in Chapter 5, this need refers to a basic desire to influence and lead others so as to control the person's own environment.

Perhaps the nature of a job such as caring for the elderly makes this kind of behaviour difficult, and as such, people with a high need for dominance are less likely to experience intense positive emotions in such a job. The other need that was examined – the need for autonomy – appeared to be unrelated to the experience of positive emotions, although as I argued in Chapter 5, this may have been related to the poor internal consistency of this measure.

Besides these work-related needs, the role of a work-related orientation was also examined: the extent to which individuals regard their work as a *calling*. The analyses presented in Chapter 5 revealed that this variable also influenced the intensity of care workers' positive emotional experiences. It seems therefore that care workers who see their work as a calling are more likely to experience more intense positive emotions at work. Can we conclude from this finding that seeing one's job as calling *causes* one to experience more intense positive emotions at work? Whilst it is possible that such an effect exists, I have also argued above that there may be a two-way relationship between this construct and positive emotional experiences (see section 8.1.3). Seeing one's job as calling, I argued, appears to overlap with having a sense of meaning in one's work, a construct which was in turn found to be fostered by care workers' positive emotional experiences at work (see Chapter 6). In other words, these overlapping constructs might be seen as both a cause *and* an effect of positive emotional experiences. A question might then be asked: is the 'calling' construct really a stable disposition? Wrzesniewski et al. (1997) argue that it *is* in the sense that it is generally found to be stable in the same people across organizations over time and that, given the same exact experience, some will perceive it as meaningful and positive and others will not, depending on their original orientation. However, the same author also implies that organizational and work experiences might help to foster such an orientation (see Wrzesniewski, et al., 2003). Although this debate goes beyond the scope of the present thesis, I would argue that in future studies a more in-depth level of analysis may be needed to examine these dynamic processes which seem so hard to pin down. Perhaps, as I have suggested several times already in this chapter, qualitative methods - which place a greater emphasis on process (Lee, et al. 1999) – may be better suited for a detailed understanding of precisely how (positive) emotional experiences acquire meaning, and how the meaning we attach to things affects how we react to them emotionally.

So what are the implications of these findings? On the most basic level, they highlight the importance of an individual's needs and orientations in emotional processes, consistent with Lazarus' (1991) theory of emotion appraisal. Three of the four work-related needs specified by Steers and Braunstein (1976) and the one work-

related orientation which was tentatively proposed were each found here to contribute towards care workers' positive emotional experiences. As I described in Chapter 5, previous studies have shown that work-related needs play a role in determining work attitudes such as job satisfaction (Okpara, 1997; Mpeka, 2003) and work behaviours (Mudrack & Farrell, 1995; Wegge & Kleinbeck, 1994); the findings presented in this thesis suggest that they also affect momentary psychological states such as emotions. One could tentatively argue that (positive) emotional experiences might mediate, at least partly, the effect which individual needs exert on work attitudes and behaviours. Although this kind of proposition goes beyond the scope of the present thesis, future research on these work-related needs may wish to consider the possibility that their effects might be at least partly explained by the influence they exert on day-to-day momentary emotional experiences.

More specifically, the findings observed here also suggest that we should take into account an individual's needs when trying to predict how they will respond *to particular situations or events* at work. I will return to this issue again in a moment.

8.2.8. Gender, Age and Tenure

The findings from this thesis suggest that a care worker's gender, age and tenure may also influence their positive emotional experiences at work.

By far the most influential of these demographic factors was gender: female care workers gave more intense self-reports on almost all of the positive emotions. As I pointed out in Chapter 5, the existing literature presents somewhat conflicting evidence for the effect of gender on the reporting of emotional experiences. Whilst evidence generally suggests that females are more likely to report higher intensities of experienced emotions than males, arguably due to cultural expectations (see Diener, Sandvik, & Larsen, 1985), some researchers have suggested that these effects depend on the methods of assessment; more specifically, it has been pointed out that when diary methods rather than retrospective self-reports are used there are few gender effects on the reporting of emotional experience (LaFrance & Banaji, 1992). The findings of this thesis contradict this last observation. Unfortunately, however, the generalisability of these findings is obviously somewhat restricted by the massively disproportionate ratio of females to males in my sample. Assuming that these findings *are* reliable, however, how likely is it that the differences between females and males are due to cultural expectations which shape the *reporting* of emotions? Could it be that females also actually *experience* positive emotions more intensely? A recent and rare cross-cultural analysis by Lucas and Gohm (2000)

shows that across cultures women fairly consistently tend to report more positive emotions than men, suggesting that these differences might reflect underlying biological differences between women and men, and not simply effects of culture on the reporting of emotion. Such biological differences – normally in relation to negative emotional experiences – have sometimes been explained in terms of hormonal differences between men and women (see e.g. Frey, 1985; Vingerhoets, Cornelius, Van Heck & Becht, 2000).

Age was significantly associated with lower intensity scores on some positive emotions, consistent with the findings of Diener et al. (1985) (but see also Mroczek & Kolarz, 1998). To explain this effect, Diener et al. (1985) offered a number of explanations. One of these is biological, with the idea that younger persons may have greater levels of autonomic arousal. Another possible explanation is related to cultural expectations, such that older people may think that they are expected to be more ‘mature’ and less emotional. Lastly, there may be a habituation effect, such that repeated exposure to the same types of events somehow lessens the positive impact which these have on the worker. This last explanation would seem to be particularly relevant to the study presented here, since tenure was also found to be negatively associated with the intensity ratings on several positive emotions, above and beyond the effect of age. Perhaps the workers who have had repeated exposure to the types of positive events which are intrinsic to care work experience the kind of habituation effect described by Diener et al. (1985). One could speculate that there is a kind of ‘novelty wear-off effect’, such that the repeated experience of positive emotions in reaction to certain types of events reduces the intensity of future experiences of positive emotions in reaction to those same types of events. Unfortunately, the tenure variable that was adopted for the study I presented in Chapter 5 only measured the length of service working for the organisation and not the length of time spent working within the profession of care work, so care should be taken in jumping to any conclusions of this type. Furthermore, there may be other variables which play a role. One could speculate that those workers who had been in care work for longer would be more susceptible to *burnout*, which in turn might affect the way that positive events are appraised. A key dimension of burnout is emotional exhaustion, which “prompts actions to distance oneself emotionally... from one’s work” (Maslach, Schaufeli, & Leiter, 2001, p. 403). It is conceivable that this type of process might have affected the way that positive emotions were experienced and / or reported.

In conclusion, it seems that workers’ positive emotional experiences may be to some extent affected by factors related to their gender, their age, and how long they

have been in the job. I have suggested a number of possible mechanisms which might help explain these effects, although it seems that perhaps more research is needed into some of these relationships, because the evidence in the existing literature on the relationship between gender, age and emotions is far from conclusive (see Mroczek & Kolarz, 1998; Shields, 2000). It seems that the tentative general conclusions that can be drawn from it so far are that (a) the experience of positive emotions may vary between individuals as a result of biological differences; (b) the experience of positive emotions may also vary between individuals as a result of previous emotional experiences; and (c) the *reporting* of positive emotional experiences may be influenced by cultural expectations. It seems likely that any study of positive emotional experience at work should bear these factors into consideration.

8.2.9. Combining our Knowledge about Situational and Individual Antecedents of Positive Emotional Experiences

As I have outlined in this section, positive emotional experiences at work appear to occur as a function of a variety of both situational and individual antecedents. With regards to the former, the most obvious practical implication of the findings would be that by promoting (for example, through work redesign) the types of situations at work that produce workers' positive emotional experiences, it may be possible to harness the benefits associated with these experiences (see Appendix E). With regards to the latter, it may be tempting to simply conclude from the findings that there is a certain general type (or profile) of person who is most likely to enjoy the experience of being a home care worker.

However, a closer look at the findings suggests that it is a little more complicated than that. By classifying positive emotions according to their situational antecedents, it was possible to observe more subtle effects. For instance, it was found here care workers with a high need for affiliation particularly enjoyed social interaction types of events but no more likely to enjoy their tasks, whereas those with a high need for achievement were more likely to enjoy their tasks but no more likely to enjoy social interactions (see Chapter 5). The implications of these findings are that within the care work profession, workers with a high need for achievement might be more likely to benefit from roles involving more complex skilled tasks (such as nursing tasks) since they will be likely to experience more intense task-oriented positive emotions. Likewise, those with a high need for affiliation might be more likely to benefit from roles involving more general personal care, with fewer skilled tasks, where they would benefit from the social interactions with their clients and experience more

intense socially-oriented emotions. Given that in the particular care work provider where this work was carried out, there are separate units or teams which may specialize in either one type of task or the other (for example the rapid response units which deal largely with health care tasks – see Chapter 3), this kind of information would be valuable for both the selection and career development of care workers. For instance, it may be possible to assess care workers on these needs before offering them roles, or to redistribute them to a position which fits their needs and where they are most likely to experience positive emotions on a day-to-day basis.

These findings therefore suggest that studying positive emotional experiences might be important, not just for work redesign in a general sense (e.g. redesigning aspects of the job with the average worker in mind) but also for more individual-oriented approaches such as career management and development. Although researchers interested in career development have traditionally tended to ignore the role of emotions, in recent times there has been a call within this field of study for a much greater consideration of individual's emotional experiences at work (Kidd, 1998; 2004). The findings from this thesis suggest that momentary positive emotional experiences may play a role in explaining how certain aspects of a workplace may evoke certain attitudes and behaviours from some individuals but not for others. For example, when individuals with a high need for affiliation are placed in a work context where pleasant social interactions are frequent, they may be more likely to experience intense positive emotions, which in turn predict a number of specific cognitions, behaviours and attitudes (as hypothesised in Weiss & Cropanzano's (1996) Affective Events Theory, and supported by the findings of this thesis). Positive emotions can therefore be seen as mediators, a missing link that helps to further explain the relationship between work situations, dispositional factors, and work attitudes and behaviours. This is an idea which I will return to in the next chapter.

8.3. Conclusions

In this chapter I have argued that momentary positive emotional experiences at work can have a number of immediate effects on workers' cognitions and behaviours (for example, by providing boosts in motivation and giving rise to creative insightful thoughts), which in most cases are likely to be beneficial to both the individual who experiences them and to their employing organisation. The findings suggest that positive emotions may also have an impact on psychological processes (for example,

finding a sense of meaning in work) whereby their beneficial effects last well beyond their pleasant momentary experience.

I have also discussed the implications of the research for our understanding of how positive emotions arise in work settings, and pointed to some of the practical applications of the findings. In particular, I have argued that traditional accounts of the causes of positive affect at work do not give sufficient importance to the role of day-to-day social interactions.

I have also suggested that since the study of positive emotions at work is still in its infancy, further work is needed to follow up many of the findings presented here, to explore in more detail the processes that underpin the causation of positive emotions.

Now I turn to the final chapter of this thesis, where I will draw together the various findings and discuss ways of modelling positive emotions at work.

9. Modelling Positive Emotional Experiences at Work

As should be apparent by this stage, positive emotions at work are both complex and perennial phenomena. They are influenced by a wide range of factors and appear to play a role in a number of cognitive and behavioural processes (which have implications for both the individual worker and their employing organisation), as I described in the previous chapter. In this chapter, I will draw together the various findings of this thesis and demonstrate how they help to advance our knowledge of positive work affect, in the context of the historical background which I provided in Chapter 1.

This discussion will be divided into four separate sections. In the first section, I discuss what the findings of this thesis tell us about the relationship between positive emotions at work and work attitudes such as job satisfaction, given that the latter construct has often (inappropriately) been used as a surrogate for positive emotional experiences at work in the past literature, as I described in Chapter 1.

I will then build on the conclusions derived from this discussion, and integrate them with the various findings which I outlined in Chapter 8 to produce a general model of positive emotional experience at work. I will argue that besides its immediate applications, this framework may also help to highlight a number of avenues for future research.

Having done this, in the third section I will argue that it may be possible to explore the structure of positive emotional experience at work by examining some of the different functions of these experiences. I will also argue that by distinguishing between different types of positive emotional experience at work we may be able to make more specific predictions about the outcomes of these experiences.

In the fourth and final section I propose that although this thesis primarily relates to the positive emotions experienced by care workers for the elderly, many of the findings may also apply to other occupational settings. In any case, I will also suggest ways in which the positive emotional experiences of workers in other occupations might differ from those of care workers.

9.1. Positive Emotions vs. Positive Work Attitudes

One of the aims of this thesis, as outlined in Chapter 1, was to examine the role of positive emotions at work in relation to the construct of job satisfaction. As I described in Chapter 1, job satisfaction has often been used in previous research as a

default measure of positive emotional experience at work, but in recent times it has been depicted as a more stable, attitude-like construct which may be influenced by a number of factors including positive emotional experiences at work. In particular, the aim was to test propositions derived from the Affective Events Theory (Weiss & Cropanzano, 1996), which state that (a) the experience of positive emotions at work predicts work attitudes (such as job satisfaction), but also that (b) positive emotions and work attitudes differ in terms of their antecedents and outcomes, such that we can state that they essentially constitute independent constructs.

To tie in with the historical account I gave of the study of workplace positive emotions in Chapter 1, I would like to evaluate in this section what the findings of this thesis tell us about the value of studying positive emotions relative to the value of studying job satisfaction, given that the latter topic has characterised most traditional approaches to the study of positive affect at work. I will also discuss how the findings of this thesis may contribute towards understanding how and why the cumulative experience of positive emotions at work might influence attitudes such as job satisfaction and organisational commitment.

9.1.1. Implications for Assessing Positive Emotions versus Assessing Job Satisfaction

As I described in Chapter 1, since early studies such as that of Hersey (1932), most of the existing literature on positive emotion at work seems to assume that this construct is equivalent to and interchangeable with that of job satisfaction. The Affective Events Theory (Weiss & Cropanzano, 1996) challenges this notion, proposing that emotional experiences can influence job satisfaction, but arguing that emotions and attitudes such as job satisfaction are in fact separate constructs. As I pointed out in Chapter 1, it is argued that whilst emotions are seen as being rich, variable and temporary 'hot' experiences, attitudes are by contrast, seen as being stable and 'cold' (Organ & Near, 1985; Staw, Bell & Clausen, 1986).

The findings of this thesis provide support for this proposition. In Chapter 7, I tested a model – based on the Affective Events Theory (Weiss & Cropanzano, 1996) – which showed that although positive emotional experiences at work (measured over a 2-week period) were associated with both job satisfaction and organisational commitment, they differed from these work attitudes in terms of their antecedents and outcomes.

For instance, it was found that whilst positive emotions did not predict judgment-driven behaviours such as the intention to quit (which was instead better explained by work attitudes), they did predict increased motivation, creative insights, and the

desire to help, the reporting of which was found to be far less related to work attitudes. This kind of finding is consistent with another recent test of this proposition of the Affective Events Theory (see Fisher, 2002).

What does this finding essentially mean? It means that whilst some work-relevant behaviours can be understood through knowledge of a worker's attitudes towards their work, others require a knowledge of more short-term momentary emotional states, which constructs just as job satisfaction do not properly capture. It seems that measures of job satisfaction, for instance, cannot tell us as much about workers' motivation on a day-to-day basis, or how creativity arises in the workplace. To be able to develop an understanding of employees' work-related behaviours therefore, it is not sufficient to simply consider stable constructs such as work attitudes; we need to consider the role of positive emotional states too.

I further found that positive emotions and attitudes differ in terms of their antecedents, something which Weiss and Cropanzano (1996) did not specifically address in their theory. Whilst I found some kinds of work features to be predictive of emotional experiences, other kinds were instead found to be more directly predictive of work attitudes. More specifically, the work features which were predictive of positive emotional experiences were those which were most obviously related to the types of events reported in the diary studies: social relationships with clients or colleagues, and the extent to which work was perceived as challenging. Other work features, such as pay conditions, were predictive of work attitudes but not of positive emotional experiences. These findings provide further support for the idea that a worker's emotional experiences at work and their work attitudes are fairly independent. For instance, pay conditions may influence how committed an employee is to his or her organisation, but exert little influence on day-to-day positive emotional experiences at work and on the many beneficial outcomes associated with these emotional experiences (which I outlined in Chapter 8). On the other hand, having challenging and interesting work, and having high quality social relationships with clients and colleagues appears to be far more important determinants of these experiences and their associated benefits. This, combined with the finding that positive emotions can in turn foster favourable work attitudes, implies that there are many ways for managers to harness committed and satisfied employees. Whilst pay conditions may foster organisational commitment, positive emotional experiences at work – such as might be caused by having challenging work or high quality social relationships – may be *equally* predictive of this work attitude and, according to the findings of the model variations presented in Chapter 7, they may be even *more* predictive of job satisfaction than pay is (see section 7.2.7).

In light of theoretical work such as Weiss & Cropanzano's (1996) Affective Events Theory, and the emerging empirical literature to support it – as provided by the current thesis (see also Fisher, 2002) – it seems inappropriate for researchers and practitioners to continue to treat positive workplace emotions and attitudes, such as job satisfaction, as equivalent constructs.

As I pointed out in Chapter 7, this kind of conceptual ambiguity may have contributed to the disappointing yield from studies that attempt to link job satisfaction with outcomes such as performance (see Wright & Staw, 1999). Weiss (2002) argues that researchers may have failed to make progress in finding such a link because hybridizing affect and attitude has resulted in losing valuable information about the specific predictive power of each of the two separate sets of constructs. If we want to truly understand the performance implications of worker's pleasant experiences at work we will need to conduct more careful analyses of the work-relevant consequences of positive emotions.

As I have shown in this thesis, a study of positive emotions provides a far more comprehensive and more useful examination of workers' pleasant experiences at work than would be provided by a simple job satisfaction survey. Positive emotions, as momentary psychological phenomena, appear to be more predictive of thoughts and behaviours and are therefore more likely to have a more direct impact on performance and productivity. Perhaps future studies that seek to test the happy-productive worker hypothesis would therefore be better off measuring true positive affective states (such as emotions) rather than job satisfaction (see also Lucas & Diener, 2003)

A study of positive emotions such as was carried out for the present thesis also provides more detail about the situational antecedents of pleasant experiences at work; rather than provide an arguably vague measure of a general desirable work feature, such as task variety or autonomy (as found in most scales of job characteristics, such as that of Hackman & Oldham, 1980), this thesis has provided detailed descriptions of the types of events that are most likely to precede a positive emotional experience in the specific population which I examined.

Although work attitudes (such as job satisfaction) are certainly worth studying, for example as the predictors of more carefully-calculated behaviours (such as turnover), they do not provide a sufficient or indeed adequate measure for capturing how people react to the positive aspects of their work, such as they have often been used in the past (Weiss, 2002), and I would hope that the findings of this thesis would alert researchers and practitioners to this fact.

9.1.2. Understanding Why Positive Emotional Experiences at Work Influence Work Attitudes – Positive Emotions vs. Positive Moods

In their Affective Events Theory, Weiss and Cropanzano (1996) posited that when asked to form an attitude about work, workers construct these evaluations on the spot (see Wilson & Hodges, 1992), using – amongst other things – memories about previous emotional experiences at work; they argued that positive (and negative) emotional experiences at work may therefore, through their cumulative effect, shape attitudes towards the job. Consistent with this, a number of other researchers have also argued that people use recent relevant emotional events as heuristics when asked to form evaluations about a given object (Kahneman, 1999; Tanur, 1992).

Weiss and Cropanzano (1996) did not specify whether it would be the frequency or intensity of emotional experiences which shaped the formation of attitudes. The findings of this thesis suggest that it is the *intensity* and not the frequency of positive emotional experiences that influences work attitudes in the long run. In Chapter 6 I speculated as to why the frequency of positive emotional experiences might have been found to be inconsequential. One explanation, I suggested, involves questioning the validity of the frequency measure (see Section 6.7.3); on the other hand, I also argued that it may simply be that the frequency of pleasant experiences at work really is less important than their intensity.

Why should the intensity of positive emotional experiences be so influential on workers' evaluations or attitudes about their work? In Chapter 7, I presented a model proposing that the effect of positive emotional experiences on work attitudes might be mediated by the effect which these experiences have on positive mood throughout the day, such that an emotional experience would only influence a work attitude in the long-term if it contributed to a long-lasting positive mood. Having demonstrated in Chapter 6 that the likelihood of reporting a long-lasting positive mood was determined by the intensity of the positive emotional experiences which preceded it, I speculated in Chapter 8 that some positive emotions may not affect mood because they are not intense enough to influence the overall level of background affect. These mild affective 'shocks' may not be strong enough to disrupt the regularity of underlying affect patterns (see Weiss & Cropanzano, 1996). Additionally, I suggested that some positive emotions may not have a lasting impact on moods because their effect might be interrupted or overshadowed by an intervening negative emotional experience; this is an important point, and one which I will return to in more detail in the next section.

The analyses presented in Chapter 7 generally supported this proposed model. The effect of positive emotions on job satisfaction (and, to a lesser extent, organisational commitment) was found to be mediated by their effect on mood throughout the day. Once the effect of long-lasting positive mood on work attitudes was taken into account, the relationship between positive emotions and attitudes became non-significant.

I believe this finding has important implications. It suggests that although the Affective Events Theory (Weiss & Cropanzano, 1996) is right to afford emotions (as reactions to events) a central role for understanding the generation of work-related attitudes and (particularly) behaviours, it may be worthwhile taking the level of analysis further. To understand the full impact of positive emotional experiences at work, we need to examine how they occur within the context of other experiences throughout the working day, and how they impact on moods over time. In their discussion about how affective states might influence attitudes, Weiss and Cropanzano (1996) suggested that “it is more likely that specific events and not general mood levels are stored and recalled. Consequently, it may be that average mood level over a period of time predicts satisfaction because it is an indicant, however imprecise, of the frequency and / or intensity of affective events” (p. 48). The findings of this thesis are not entirely consistent with this statement. I would argue that, in the case of positive emotions at least, emotional experiences are probably only stored and recalled by workers where these have a long-lasting effect on mood throughout the day at work. If they do not, the memory of these experiences probably decays rather rapidly (Altmann & Gray, 2002), and may not weigh very heavily in the worker’s mind when she is asked to form an evaluation or attitude towards her job. This kind of interpretation would certainly help to explain why the frequency of positive emotional experiences was found to be inconsequential.

I am not suggesting that people do not use memories of specific emotional work events when asked to form evaluations or attitudes about their work. Instead I would argue that people probably *also* include in this evaluation a consideration of how they have felt overall at work recently, and that this is likely to be affected by both positive and negative emotional events – and not necessarily to the same degree – a point I will return to in the next section.

The idea that moods might be as important as discrete emotions in predicting work attitudes is in fact consistent with the results of previous tests of the Affective Events Theory. A study by Fisher (2002) – which I have already referred to on several occasions throughout this thesis – tested the propositions of this theory using *signal*-contingent measurements of affective experience. In other words, participants

were prompted to make diary entries in response to a signal from an alarm, rather than following a specific emotional event, so it seems likely that what they were reporting on many occasions were *moods* rather than emotions per se. In Fisher's (2002) study, the aggregated scores of the positive affective states that were recorded in this way were found to be predictive of both job satisfaction and organisational commitment – measured at the end of the 2-week diary study. Similarly, Weiss, Nicholas and Daus (1999) charted individuals' daily mood levels (rather than emotions) at work over a 3-week period, and found them to predict job satisfaction at the end of that period. On the other hand, in another study Grandey et al. (2002) adopted an *event*-contingent experience sampling methodology to ensure that it was emotions and not moods that they were measuring – as I have done in this thesis – and, using a measure which incorporated the *frequency* of these positive emotional experiences, they found these to be *unrelated* to job satisfaction measured at the end of the diary study. What these findings – taken together – suggest is that the relationship between positive affective states and attitudes seems to be stronger when the average intensity of positive *mood* at work, rather than the frequency of positive emotions experienced at work, is used as the unit of analysis.

It seems likely therefore, that although discrete positive emotional events may contribute to workers' attitudes and evaluations about their job, it is important to consider them in the context of overall mood at work, which may in turn be influenced by a number of other factors. In saying this I am not suggesting that moods rather than emotions should be the chosen unit of analysis in organisational research; far from it. Rather, it seems likely that both types of affective state are important: studying positive emotions can tell us about the types of workplace events that precede affective experiences and, very importantly, it can tell us about more specific effects on cognition and behaviour, as I have demonstrated in this thesis. On the other hand, to understand how these emotions impact on work attitudes in the longer run, I believe it may be necessary to cast the net wider and examine them in the context of patterns of longer-lasting moods and overall well-being at work. When we consider that mood and well-being are likely to be influenced by both positive and negative emotional experiences, it becomes clear that to fully understand the role of positive emotions at work, we need to consider the role of negative emotions too. I will discuss this issue in the next section – which I now turn to – where I will also attempt to integrate into a model each of the findings which I have discussed so far in this chapter, and those which I discussed in Chapter 8.

9.2. Towards an Integrative Model of Positive Emotional Experience at Work

In Chapter 8 I argued that the findings of this thesis point towards a number of beneficial outcomes of positive emotions experienced on the job, as well as indicating the types of situations in care work in which these experiences tend to arise. I also highlighted the role of a number of individual factors which may influence these experiences. In the first section of this chapter, I have tried to clarify the relationship between positive emotional experiences and work attitudes in light of the findings of this thesis. So far I have presented each of these sets of findings in a somewhat fragmented way. In this section, I will now attempt to combine the various strands of positive emotion research I have discussed so far into an integrative model.

This model draws together some of the emerging findings from this thesis and places them within the context of the scant existing theoretical literature on positive emotions at work. The model, whilst being fairly general and inclusive, will hopefully help to provide a heuristic framework for understanding the incidence and significance of workers' positive emotional experience on the job. In particular, this model is intended to demonstrate that by studying positive emotions as momentary reactions to events at work – rather than as chronic and fairly stable affective states – we can obtain a far more detailed and informative account of their proximal causes and consequences. Since parts of this general model are fairly descriptive, I hope that it also serves to highlight the areas or specific relationships which are most in need of further research.

Another aim of this model is to place the study of positive emotions within the context of (a) the construct of job satisfaction (as discussed in the previous section); and (b) negative emotional experiences at work. With regards to the latter, I believe that although studying positive and negative emotional processes independently may provide a basic indication of their respective roles (particularly their short-term effects), to fully understand their long-term cumulative impact on workers' well-being and work attitudes it would be far more informative to adopt a level of analysis which integrates both types of emotional experience, as I will argue later on in this chapter.

Since this thesis was carried out exclusively on home care workers for the elderly, this model refers most directly to this occupational group; however, as I will discuss below in section 9.4, many of the findings of this thesis are likely to be relatively generalisable so this model may also apply to a large extent to workers from other occupations.

9.2.1. A Model of Positive Emotional Experiences at Work

The model I present here (see Figure 9.1) is based loosely on the Affective Events Theory (Weiss & Cropanzano, 1996) which I have already discussed in other parts of this thesis (see e.g. Chapter 7). To begin with, it emphasises the idea of positive emotions as momentary reactions to discrete workplace events, rather than chronic states which are influenced by abstract stable features of the work environment – a position adopted by many traditional approaches to workplace affect (Weiss, 2002a; Briner, 1999). In the model I present here, I have listed only two specific types of events – those related to social interactions and those related to task performance – as antecedents of positive emotions because in this thesis they were found to be by far the most common sources of positive emotions in care workers and also because this classification, as I will argue in the next section of this chapter, may be useful for differentiating between different types of positive emotional experience.

Like the Affective Events Theory, the model proposed here also incorporates the importance of individual factors in shaping positive emotional reactions. The Affective Events Theory suggests that (positive) trait affectivity acts a latent disposition which influences an individual worker's appraisal of situations, and their subsequent (positive) emotional experiences. In the model I present here, I suggest taking this point further and argue that positive emotional experiences are also largely shaped by a number of other, more specific dispositions of individuals: for example, their needs and their general orientations towards work. Although I have not specified so in the model, evidence from the demographic data analysed in this thesis suggest that positive emotional experiences (and the reporting of these experiences) may also vary between men and women, and as a function of age and tenure – effects which I have suggested may be related to biological differences, cultural expectations and previous experiences.

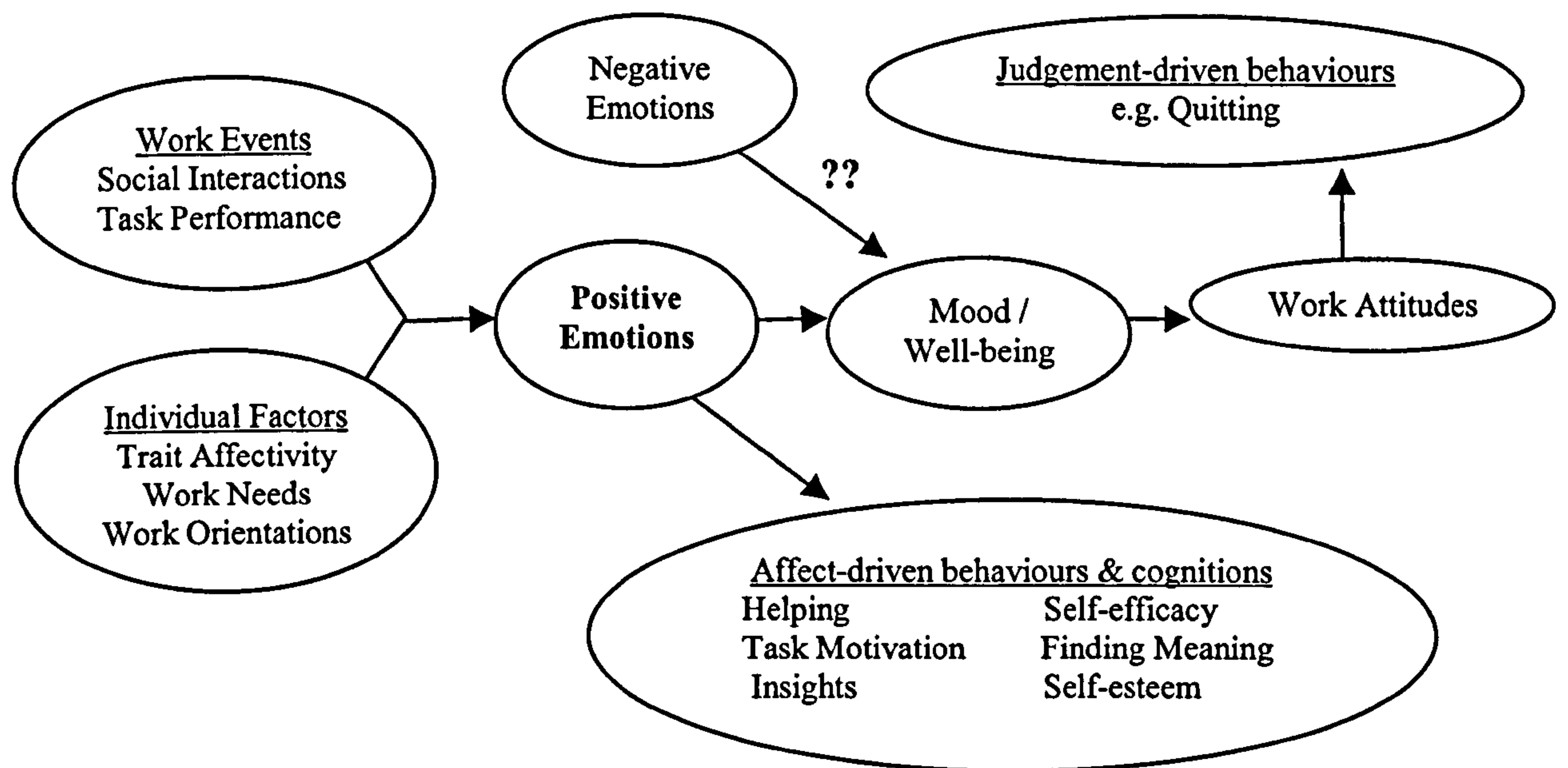


Figure 9.1. An Integrative Model of Positive Emotions at Work

In line with appraisal theories of emotions (e.g. Lazarus, 1991), I have argued that positive emotions arise from the interaction of dispositional factors with workplace events, an idea which is incorporated in the model I present here. As Briner (1999) puts it, “it is the constant process of interaction between person and environment that is important, rather than particular qualities or characteristics of the person or environment at any time” (p. 337). As I argued in Chapter 5, although no statistical interactions between either type of factor were observed when analysed as antecedents of the intensity of positive emotions, it is perfectly valid to interpret the emotional experiences as interactions of the two, since dispositional variables are likely to have affected whether a particular situation provoked an emotional reaction in the first place, and thus whether it was reported in the diaries. Furthermore, the patterns of findings provide evidence for a specific kind of interactive effect. As I pointed out above, it was found that care workers with a higher need for affiliation reported significantly higher intensity ratings on emotions that were predicted by social interaction types of events but not on emotions that were predicted by task performance, whereas those with a higher need for achievement were more likely to report higher intensity emotions on (one of) the emotions predicted by task performance but not on the emotions that were predicted by social interactions. This reveals a clear example of how a worker’s emotional reaction to a particular type of

event or situation would be likely to vary as a function of their dispositional needs regarding that type of situation.

Nonetheless, I would argue that further work is needed to uncover the processes which underpin any interactions between situational and individual factors. For instance, as I have suggested above, individual factors such as trait affectivity or the need for affiliation may influence positive emotional experiences in the sense that they may prime some individuals to experience more intense emotions than others, given the same situation (Larsen and Katelaar (1991), but they may also make some individuals more likely to seek out or attract the kind of situations which are likely to invoke intense positive emotions (Clark and Watson, 1988). In other words, positive emotions are likely to arise as a result of not just an interaction but a two-way *transaction* between a worker and his or her environment (see Lazarus & Folkman, 1984).

This framework of the antecedents of positive emotions at work is intended to provide a heuristic, based on the evidence from this thesis, and set in the context of contemporary theories of emotion (Lazarus, 1991) and emotion at work (Weiss & Cropanzano, 1996). As I have suggested above, to further develop our understanding of the causation of positive emotions at work it may be worth including a social psychological level of analysis, for example by looking at how positive emotions experienced during social interactions may be transmitted between individuals in work groups (see e.g. Totterdell, 2000; Totterdell et al. 1998). Also, to examine the effect of task performance on positive emotions it may be worth adopting approaches that acknowledge that emotional experiences in these situations may vary within individuals as well as between them, as a function of differences in perceived skill, interest and effort from one situation to another (Fisher & Noble, 2004).

One of the strongest reasons for studying positive emotions as discrete, momentary experiences becomes apparent when we consider their short-term effects on cognition and behaviour, which I incorporate into the model presented here. As I have argued above, positive emotional experiences are involved in short-term motivational changes, in creative thought processes, in fostering constructs such as self-efficacy and self-esteem and in finding a sense of meaning in work. All of these outcomes, I have argued, are likely to be directly relevant to the functioning of an individual worker and their employing organisation. I have also shown in this thesis that the likelihood of each of these outcomes depends on the nature of the positive emotional experience, a point I do not specify in the model but which I will elaborate on in the next section.

Understanding that positive emotions, as momentary experiences, have a central part to play in each of these outcomes should hopefully help to shift focus in the organisational literature away from conceptually inadequate measures of chronic affect – such as job satisfaction – as antecedents of these performance-related outcomes, particularly given the inconsistent predictive validity of such measures (see e.g. Briner, 1999). Job satisfaction and other attitudes may instead be more predictive of less emotional, more carefully-planned behaviours such as quitting (as I demonstrated in Chapter 7), a notion which I have also incorporated into the model presented here.

As with the antecedents of positive emotions, the framework of behavioural and cognitive outcomes I have developed in this thesis, and which is presented in the model, is not intended to be definitive; rather, it indicates some of the possible outcomes (of positive emotional experiences) suggested by the empirical work carried out for this thesis, which are consistent with recent theories and experimental work on the effect of positive emotions (e.g. Fredrickson, 1998; Isen & Baron, 1991; Baron, 1990). As I have argued above, further work might help to further elucidate the specific processes through which positive emotions may, for instance, foster self-efficacy, prompt motivation on specific tasks or help individuals find meaning in their work.

An emerging finding from this thesis, which is incorporated into the model, is the idea that positive emotional experience may foster longer-term work attitudes through their effect on overall mood and well-being at work. In this respect, I should restate that it is the intensity and not the frequency of positive emotional experiences which seems to be the determining factor. The model I present here is consistent with the Affective Events Theory (Weiss & Cropanzano, 1996) in that it suggests that momentary (positive) emotional experiences can shape work attitudes; however, it seems that – contrary to the Affective Events Theory's predictions – these emotional experiences exert their longer-term effect on attitudes not directly but via their impact on mood throughout the day. In other words, it seems that when people are asked to form an attitude about their work, they do not simply recall and 'add up' each emotional event; rather, besides possibly memories of specific events that 'stick out in the mind' (Kahneman, 1999; Tanur, 1992) they may also use memories about their recent mood in general and use that as a heuristic. As I suggested in the previous section, some positive emotions have less of a long-lasting impact on mood either because they are not intense enough, or because their effect is neutralised by a separate intervening 'affective shock' to the base mood level, for example a negative emotional event.

Clearly, the positive emotions which workers experience at work (resulting, for example, from pleasant social interactions with others) are not the only contributors to overall mood patterns; there are likely to be a number of other influencing factors. Among these are negative emotional experiences, which have traditionally received far more attention in the literature on workplace affect, and which I have not dealt with in this thesis. Research suggests that, in fact, negative emotional events may produce stronger physiological reactions and stronger subjective experiences than their positive counterparts (Rook, 2001; Taylor, 1991), and may therefore arguably have a more marked effect on mood.

In the context of the present sample, this kind of effect seems very plausible. Care workers often have to make a number of visits during their shifts; conceivably, the positive mood resulting from a pleasant social interaction event²² with a client on one visit might be eliminated by an unpleasant social interaction with a more difficult client on the next visit. Consistent with this, in her diary study of older adults' daily interpersonal encounters, Rook (2001) found that although negative interpersonal interactions were less frequent than their positive counterparts, they were more likely to have an effect on mood, and were likely to dampen positive mood. This kind of pattern was in fact occasionally described by the care workers in the qualitative diary study described in Chapter 4; a positive emotional episode was sometimes described as having a short-lived positive impact which was, however, lost by the time the care worker had finished visiting the next client.

Overall, it seems undeniable that to understand the longer-term effects of positive emotions on mood and ultimately on the formation of work attitudes, we need to incorporate a measurement of both types of experiences, as I acknowledge in the model I present here.

9.2.2. Implications for Assessing Positive vs. Negative Emotions at Work

I hope that this thesis will have demonstrated that the study of positive emotions as independent phenomena in their own right is clearly a valuable pursuit, and one which has received inadequate coverage in the traditional organisational literature. Overall it seems that the kind of knowledge which is obtainable through a study of positive emotional experiences could be readily used to implement organisational interventions and help to guide organisational policies. This seems to be an idea which practitioners have largely neglected over the years.

²² Or, to be precise, from the positive emotions experienced during that event.

In contrast, over the last 15 years or so, the study of *negative* emotional experiences at work (in the form of work stress) has often been applied to interventions designed to improve individual and organisational well-being, in a type of organisational audit commonly referred to as ‘risk assessment for work stress’ (Cox, 1993; Cox, Griffiths & Randall, 2003). Although such as problem-solving focus has proved to be relatively successful in establishing frameworks to protect worker health, and in reducing so-called risk factors, it has been argued that the emphasis on negative emotional states (and their causes and outcomes in terms of hazards, risks, and harm) may not be unmasking the full picture of the relationship between work and well-being (Holden-Peters & Griffiths, 2003).

A study of positive emotional experiences may prove to be a useful complement to these kinds of audits. As I pointed out in Chapter 1, evidence overwhelmingly suggests that positive and negative emotions have quite independent predictors (Clark & Watson, 1988; Fisher 2002; Holden-Peters, Griffiths & Brenner, 2004; Kanner, Coyne, Schaefer & Lazarus, 1981; Stallings, Dunham, Gatz, Baker & Bengtson, 1997); reducing the causes of negative emotions does not, in itself, directly promote positive emotions (Fredrickson, 2000). Equally importantly, as I have demonstrated in this thesis, positive emotional experiences may have quite specific cognitive and behavioural outcomes which would not necessarily be directly promoted by simply eliminating the negative emotion-inducing aspects of work. In this sense, positive emotions are “more than the absence of negative emotions” (Fredrickson, 2000). Besides these independent effects, positive emotions may also play a role in mitigating the health-related effects of negative emotional experiences. As I pointed out in Chapter 1, they have been found to hasten recovery from the cardiovascular sequelae of negative emotions (Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan & Tugade, 2000). All in all, and particularly in the light of the findings from this thesis, I believe there are enough arguments to support the value of including a consideration of positive emotional experiences in these types of organisational audits; it would enable practitioners to greatly expand the range of their assessments and recommended interventions in the psychosocial work environment.

In the present thesis, to counter the trend of focusing on negative emotions, I have focused exclusively on positive emotional experiences at work, and so naturally this thesis represents a one-sided view of emotions. In the future, however, I would advocate a holistic approach to studying emotions at work, to include a consideration of both negative and positive states. Having ‘the complete picture’ is likely to make it easier to understand the precise roles of both types of emotion and the relationships

between momentary emotional experiences and overall well-being. As Briner (1999) points out, it may be the relationship between the two and how they change over time that is the central issue rather than simply the degree or quantity of either one.

Future research may wish to address in more detail, for example, the role that positive emotions play in emotion regulation. In the present thesis I have suggested that helping behaviours may constitute an example of individuals trying to preserve their pleasant emotional states. Do positive emotions also play a role in reducing existing unpleasant affective states? For instance, do workers intentionally seek out situations which are likely to induce positive emotions so as to neutralise their negative moods? Relatedly, what role do positive emotions play in coping with negative emotional experiences? This last idea has received some attention in recent times, with research suggesting that positive emotions play a central role in coping processes by encouraging reappraisal of events that were previously appraised as negative and by fostering a sense of meaning (Folkman, 1997; Folkman, Moskowitz, Ozer, & Park, 1997), a finding which overlaps with some of themes discussed already in this thesis.

9.2.3. Implications for Assessing Positive Emotions vs. Assessing Moods

The model I have presented based on the findings of this thesis also has implications for research on workplace affect in the sense that it helps to clarify somewhat the significance of measuring momentary emotions vs. measuring moods. In Chapter 1 of this thesis I suggested that (positive) momentary emotions may be more predictive of specific cognitions and behaviours than general mood states (see also Morris, 1989).

The findings of this thesis suggest that momentary emotions may indeed predict specific short-term organisationally-relevant cognitive and behavioural outcomes, consistent with current theories of positive emotion (e.g. Fredrickson, 1998). Studying emotions may also help to provide a better understanding of the proximal causes of workplace affect, as I have argued and demonstrated in this thesis. In this sense, measuring specific emotional events may be more informative than measuring more vague mood states (see also Weiss & Cropanzano, 1996).

However, the findings also suggest that studying positive emotional events as discrete units of analysis may not provide us with a full picture of their longer-term implications, for example on attitudes; as I have argued above, momentary positive emotions need to be considered in terms of how they contribute to overall mood, and a consideration of other factors which also contribute to mood seems necessary for such an analysis. An implication of this finding is that random sampling of mood

states (see e.g. Fisher, 2002, Judge & Ilies, 2004) may be more representative of an individual's work-related affective well-being than event-contingent sampling of specific emotional episodes (as adopted in this thesis, see also Grandey et al. 2002).

Researchers need to be aware of the value of studying each type of affective state. As Weiss and Cropanzano put it, "one can focus on the stable patterns and treat exogenous [emotional] events as error... or one can detrend the data to examine the effect of exogenous shocks". (p. 46). Overall, it seems that both (positive) emotions and moods are closely interdependent, and both have an important role to play in analyses of workplace affect. I would suggest that future studies may wish to consider, for example, examining which types of positive emotional events are most likely to influence overall mood; the findings from this thesis suggest that, in care workers, social interactions with clients are the emotional events most likely to have a lasting impact on mood. I will return to this point again in a moment in section 9.3.

As I pointed out in Chapter 1, positive emotions – in the true meaning of the term – have almost never been adequately studied before in work settings, so the current thesis represents an important step forward.

9.2.4. *Conclusions*

I believe the findings of the exploratory work conducted for this thesis have illustrated that positive emotions are a perennial phenomena; it is not particularly easy to pin down a precise role for them in workplaces because they seem to be involved in so many different psychological processes, and to be influenced by so many different antecedent factors, as I have discussed in this chapter.

In this section I have proposed a model in an attempt to structure the various findings from this thesis. I hope that this framework will help to inspire further work on positive emotions at work, and further theory-building and model-testing; as I have argued, it may be possible to study the processes that underpin some of the relationships I have specified in far greater depth. I have suggested a number of potential ways to do this.

One of the aspects which I *have* explored in greater depth than is reflected in the model presented here is the *structure* of positive emotional experiences. Although this model suggests that positive emotional experiences are a fairly unitary construct, in the next section of this chapter I will argue that there may be different types of positive emotional experiences, with somewhat different functions, and with potentially different consequences for the workers who experience them and for their employing organisation.

9.3. The Structure of Positive Emotional Experiences at Work: Socially-Oriented vs. Task-Oriented Positive Emotions?

As I pointed out in Chapter 1 of this thesis, researchers have traditionally tended to treat positive emotion as a global construct, with most studies aggregating positive emotion items into a general factor rather than using specific emotions or even sub-clusters of positive emotions as units of analysis. However, in recent times some have argued that we should be more discerning in our approach to studying emotions, suggesting that looking at specific emotional states may enable us to make more specific predictions about the likely outcomes of emotions (Brief & Weiss, 2002; Briner, 1999; Lazarus, 1999). In the case of negative emotions, it is clearer to see the difference between specific emotions such as anger and fear because each of these tend to have fairly unique physiological correlates (e.g. Cacioppo, Berntson, Larsen, Poehlmann & Ito, 2000), tend to be accompanied by fairly unique expressions (Ekman, 1992) and tend to give rise to specific behaviours (e.g. Oatley & Johnson-Laird, 1987). However, in the case of positive emotions, there appears to be far less differentiation (Levenson, Ekman & Friesen, 1990; Lucas et al, 2003).

One of the aims of this thesis was to address this issue, and explore the structure of positive emotional experience at work. In Chapter 5 I showed, through principal components analysis, that the positive emotion terms that were used to capture workers' emotional experiences formed one single factor of intensity. Consistent with this finding, in Chapter 6 where I aggregated all of these terms into a global measure of positive emotion intensity, I observed that these items were very highly inter-correlated. This seems to reflect the general pattern observed by many previous researchers (Diener et al., 1995; Fredrickson, 1998; Watson & Clark, 1992).

Does this necessarily mean therefore that there is one single dimension underlying positive emotional experiences? I would argue that there is a case to make that although positive emotional experiences may be reported in a similar way (they may all subjectively *feel* relatively similar), may have relatively uniform patterns of expression and have largely overlapping underlying physiological substrates, by adopting a more subtle approach and examining their antecedents we can see that they may serve quite distinct functions in different situations, and that as a result their consequences may vary from one situation to another.

The multilevel analyses I presented in Chapter 5 suggest that some positive emotion terms were likely to receive higher intensity ratings for some events or situations, and lower intensity ratings for others. More specifically, social interaction-related events and task-related events seemed to predict higher scores on different

emotion items, and in some cases one type of event predicted higher scores on items on which the other event significantly predicted lower scores. The multilevel analyses also revealed corresponding patterns of associations for two of the work-related needs. For instance, the items that were positively associated with social interactions were also positively associated with the need for affiliation (defined as the desire to interact socially); one of the items that was positively associated with events related to task performance was also positive associated with the need for achievement (defined as the desire to excel at performance). There was very little overlap between either category. In view of these observed patterns I speculated that it might be possible to distinguish between two types of positive emotional experiences: socially-oriented and task-oriented positive emotions. I will now argue that there are both theoretical and practical reasons for making this kind of differentiation.

9.3.1. The Functions of Socially-Oriented and Task-Oriented Positive Emotions

As I suggested in Chapter 5, socially-oriented positive emotions would be those which are brought about by pleasant social interactions, for example with clients. As I have mentioned elsewhere in this thesis, some researchers have argued that emotions play very important social functions (Parkinson, 1996; see also Leary, 2000; Ryff, & Singer, 2001). At the most basic level, positive emotions in a social situation may serve as an indicator to the individual who experiences them that the current situation has been appraised as safe and worth engaging in; they facilitate approach behaviour (Cacioppo, Priester & Berntson, 1993). Fredrickson (1998) takes this analysis further and suggests that certain positive emotions prompt exploratory and often playful behaviour which builds enduring social resources. Social play, she argues, builds lasting social bonds and attachments which can become a locus of subsequent social support; in other words, positive social emotions are adaptive because they help to accrue resources which outlast their own momentary duration.

At a somewhat different level of analysis, Parkinson (1996) has argued that most (positive) emotions serve to negotiate the terms of social relationships between individuals; they help to mediate transactions between people rather than simply exerting effects on private consciousness. For instance, when Person A experiences a positive emotion as a result of a pleasant social interaction with Person B, this experience not only serves as an indicator to the individual (Person A) that the current interaction is being evaluated as favourable, it *also* – according to Parkinson's argument – fulfils the function of communicating this evaluation to Person B (via the

expression of movements, vocalisations, etc.). This signal may, in turn, prompt a similar positive emotional reaction in Person B, assuming that this person also intends to transmit a positive evaluation of the unfolding interaction. According to this analysis, many emotions may be seen largely as forms of communication with interpersonal functions in regulating the distance between people, drawing them together or pushing them apart (Levenson, Carstensen, & Gottman, 1994).

What these two types of theory have in common is that they suggest that positive emotional experiences may have largely social functions. They may prompt us to interact with other individuals when it is in our best interest to do so by facilitating behaviour towards these individuals which helps to form or consolidate attachments, which in turn provide resources that we can then call on a later point in time. At the same time, they may help to transmit across to the other individuals that it is our intention to form some kind of relationship with them, which in turn tends to elicit an emotional response from them and thus helps to negotiate the formation of this relationship. The nature of this relationship of course depends on the context and nature of the positive emotional experiences. For instance, the positive emotions which a care worker experiences and expresses to one of her clients may help to negotiate a friendship attachment; the (perhaps more intense) positive emotions which she experiences and expresses – for example – to a colleague after work may help to negotiate a romantic attachment. In either case, it seems likely that these momentary positive emotional experiences have a fairly specific adaptive function, and possibly with fairly specific outcomes (a point which I will return to in a moment).

On the other hand, the positive emotional experiences associated with task performance, as reported in Chapter 5, would appear to serve quite a different purpose, with no obvious social or communicative element. They may provide feedback to the individual about successful progress in achieving goals or sub-goals, and prompt continued action towards those goals (Carver & Scheier, 1990; Clore, 1994; Power & Dalgleish, 1997). Relatedly, positive emotional states associated with task performance may take place *whilst* (rather than after) the individual is engaged in the task performance; they may prompt continued engagement and attention towards the object of interest. These positive states appear to tap in to Csikszentmihalyi's construct of *flow* (e.g. Csikszentmihalyi, 1992), as I suggested above. Being 'in flow' is described as a subjective state with the following characteristics: (a) intense and focused concentration on what one is doing in the present moment; (b) merging of action and awareness; (c) a sense of being in control; (d) distortion of temporal experience; and (e) experience of the activity as

intrinsically pleasant, such that often the end goal is just an excuse for the process (Nakamura & Csikszentmihalyi, 2002). Although Csikszentmihalyi does not explicitly describe flow as a positive emotional state *per se*, his definition suggests that it might be valid to regard it as such. The notion that flow states are linked to particular cognitive processes (e.g. increased concentration), actions (continued engagement), appraisal (e.g. the individual perceives himself as being in control of the situation) and a subjective experiential component is perfectly consistent with contemporary definitions of emotion, as outlined in Chapter 1.

Whether flow constitutes a particular type of positive emotional experience *per se* – or whether it is better thought of as a temporary cognitive state with emotional content – might in itself represent an interesting debate, but one which goes beyond the scope of the present thesis. What *is* relevant here is the fact that there does seem to be a certain degree of overlap between the two, and that the general function of positive emotional experience that accompanies flow differs from that of the socially-oriented positive emotional experiences which I described above. According to the flow model, experiencing flow encourages a person to persist at and return to an activity because of the experiential rewards it promises, and thereby fosters the growth of skills over time. This notion of a long-term beneficial effect of positive emotional experiences has parallels with the kind of model proposed by Fredrickson (1998) which I referred to a moment ago, except that in this case, rather than social resources, the positive emotional experiences seem to help to foster *physical* and / or *intellectual* resources. Evidence from longitudinal studies which measure flow states using experience sampling methodologies have found that these states may predict increased persistence in activities (Csikszentmihalyi, Rathunde & Whalen, 1993), and improved performance in the long-term (Heine, 1996). Research has found that this kind of positive emotional state is just as likely to occur at work as it is in play situations (Csikszentmihalyi, 2000; Csikszentmihalyi & LeFevre, 2000; Delle Fave & Massimini, 1988); most importantly, it seems to occur in situations where challenge or demand is equally matched by skill. As I showed in Chapter 5, it may well apply to some of the tasks which care workers carry out: for example, the skilled tasks which were once reserved for health care professionals but which are increasingly becoming a part of the home care worker's job description.

The kind of theoretical analysis offered by Csikszentmihalyi (e.g. 1992) implies that these kinds of emotional experiences might have a rather different function to the social positive emotions which I described above. Although (like their socially-oriented counterparts) task-oriented emotions may also be seen as important for the fostering of longer-term resources, there would appear to little or no social role in this

process, and in particular there seems to be no argument that these processes might have evolved to serve as forms of communication. Rather, their role seems to be primarily to exert an effect on private consciousness (cf. Parkinson, 1996) which prompts continued action or engagement in a task, fostering personal resources over time.

Fredrickson (2000a) has argued that positive emotions are part of an entirely different system with an entirely different function from negative emotions. I am tentatively suggesting here that these positive emotions may in fact have (at least) two fairly distinctive functions, and that to classify them according to these might be of value in organisational settings.

9.3.2. The Benefits of Socially-Oriented vs. Task-Oriented Positive Emotions?

Perhaps one of the strongest arguments for distinguishing between these types of positive emotional experiences would be if they could be shown to predict different types of cognitive or behavioural outcomes, because this might have practical implications for the individual worker and their employing organisation. The potential predictive power of specific emotional states was proposed as one of the main reasons for adopting a more in-depth look at emotions (Brief & Weiss, 2002; Briner, 1999; Lazarus, 1999).

The findings from this thesis seem to support this proposition: specific positive emotional states were in many cases found to have quite specific predictive power. In Chapter 6 I constructed separate scales of socially-oriented and task-oriented positive emotions and used them as individual units of analysis, examining their relationship with several cognitive and behavioural outcomes. The results revealed that the two types of positive emotional experience had fairly differentiated effects and very little overlap (see Figures 8.2 and 8.3 below). Furthermore, the patterns of findings were fairly coherent with what one might intuitively expect from these two types of experience.

Task-oriented positive emotions were found to be particularly predictive of outcomes that were closely related to the task itself. For instance, the analyses presented in Chapter 6 reveal that workers' insights about the job were very strongly predicted by the intensity of task-oriented positive emotional experiences, but also *negatively* predicted by the intensity of socially-oriented emotions. It makes intuitive sense that the emotional states associated with being immersed in tasks or completing them should be more likely to provide contextually-relevant thoughts or insights about how best to go about carrying out these tasks, than the kind of emotions caused

by pleasant social interactions. As such, these task-oriented positive emotional experiences could be argued to serve a particular adaptive function: that of facilitating, through insightful or creative thoughts, ongoing or future task performance.

With regards to the reported changes in motivation, task-oriented and socially-oriented positive emotions appeared to have quite distinct and specific effects. It was found that *task-oriented* positive emotions predicted scores on a general measure of work motivation, whereas *socially-oriented* positive emotions predicted the likelihood of a more specific desire to help the client. One could speculate that the item that was measuring work motivation was mainly capturing the care workers' general drive to complete the tasks listed in their care plan, whereas the item that measured the desire to help the client seems to have captured a more specific desire to bond with a client during a social interaction (see Kaye, 1986) – perhaps as part of the kind of relationship negotiation which I described above. All in all, these findings suggest that the motivational changes caused by positive emotional experiences are specific to the situational antecedents of those experiences and perhaps – one could argue in light of what I have said above – to the function of that particular experience.

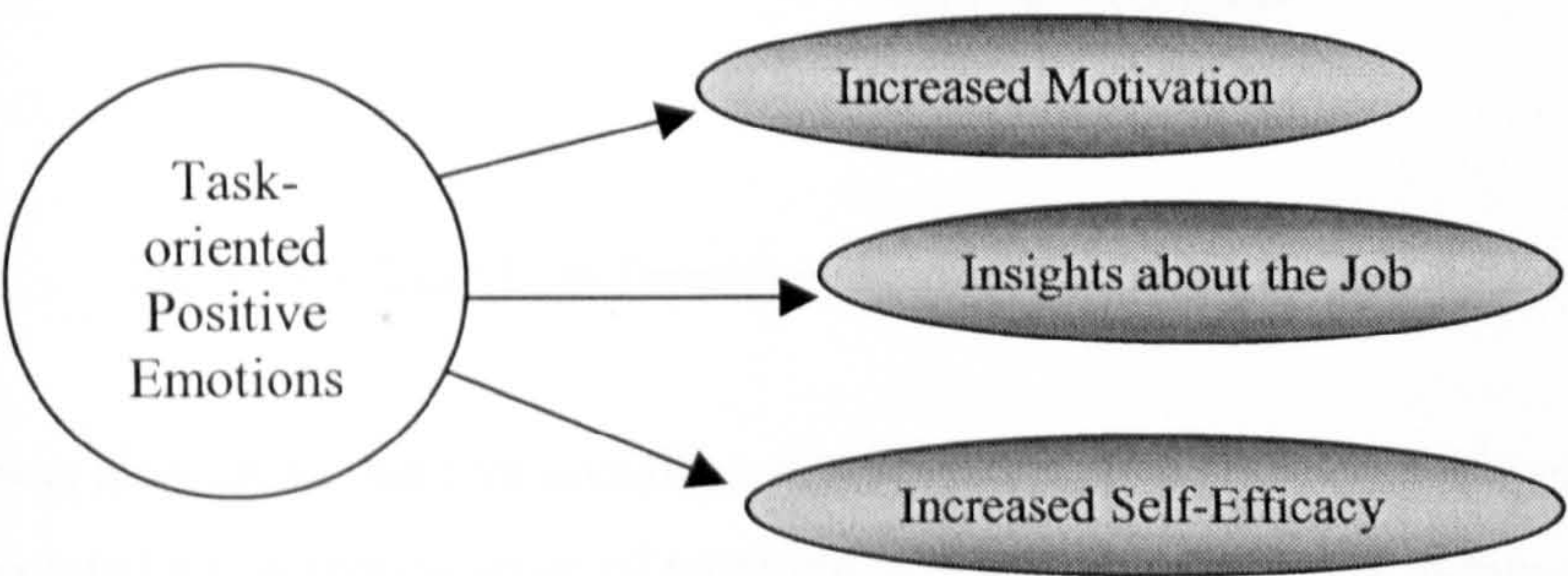


Figure 9.2. The Short-Term Outcomes of Task-Oriented Positive Emotions

Socially-oriented positive emotions were far more predictive of an outcome which intuitively seems to be more related to social relationships than to task performance per se: self-esteem. Self-esteem is said to result largely from communication or feedback from reference group members or society as a whole, concerning the value of an identity and the individual's ability to meet the expectations of the reference group and / or society as a whole (Korman, 1970). Some have argued that self-esteem is a socially constructed psychological phenomenon, which is largely shaped by the “perception of a self at ease with its others” (Hewitt, 2002, p.143). Perhaps the

pleasant social interactions between a care worker and her client – which in many cases involved recognition from the client – produced positive feelings in the care worker which helped to foster the kind of socially-influenced self-esteem referred to by Korman (1970). In any case, this outcome was found to be completely unrelated to the intensity of task-oriented positive emotions.

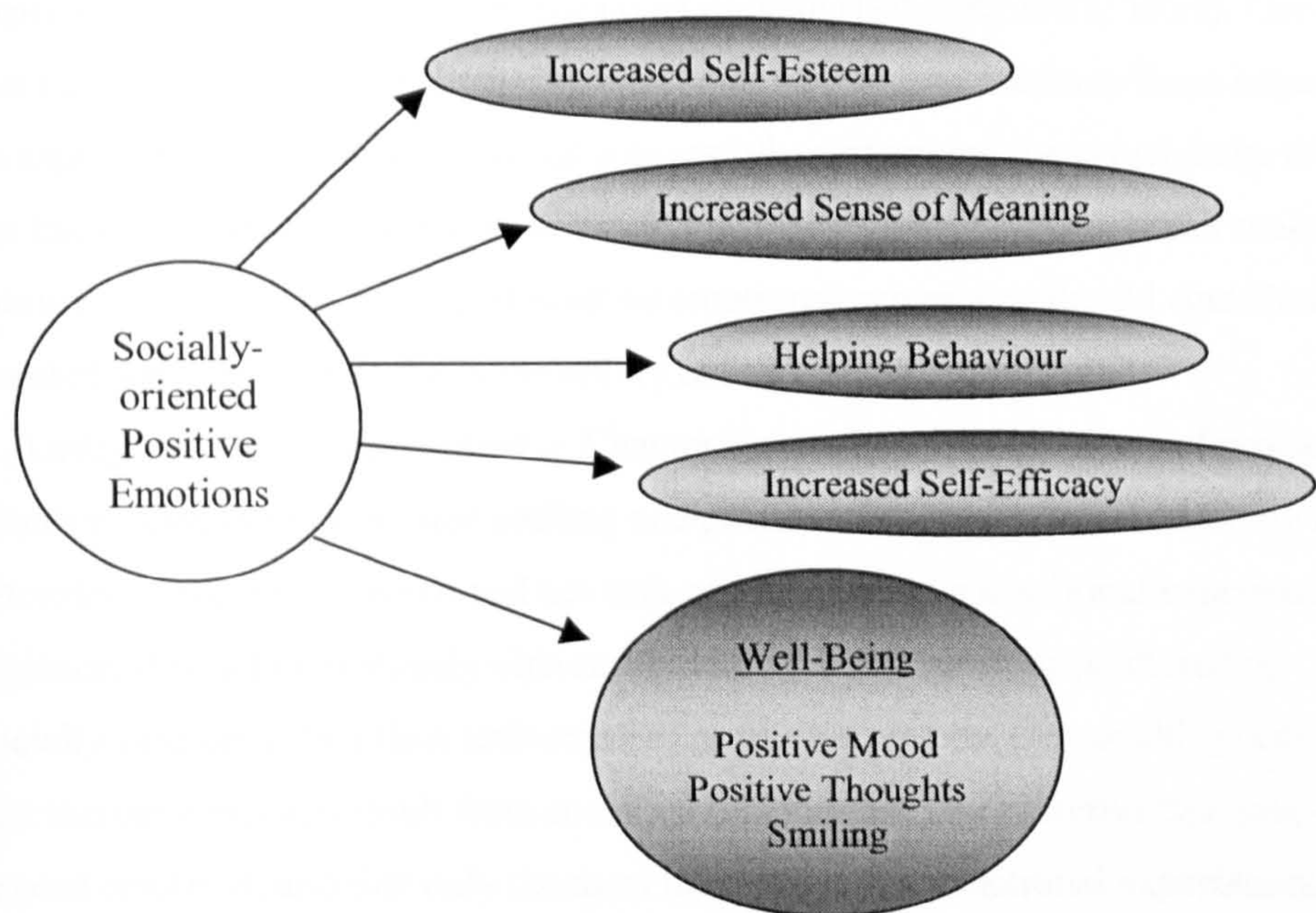


Figure 9.3. The Short-Term Outcomes of Socially-Oriented Positive Emotions

It was also found that that socially-oriented rather task-oriented positive emotions predicted an increased sense of meaning in work; this finding is in fact consistent with some recent literature on this topic. After conducting a meta-analysis of work narratives on the subject of finding meaning in work, Sandelands and Boudens (2000) argued that the organisational literature overvalues the importance of job tasks and rewards at the expense of the interpersonal ties. They concluded that “while people occasionally talk about their desire for meaningful work, this desire is not, as theories of satisfaction would have it, born of a concern for personal growth or ‘self-actualization’ (Argyris, 1957; Maslow, 1954)” (p. 49). Rather – Sandelands and Boudens (2000) argued – employees seek meaning through connection to others. The same point has also been made recently by Wrzesniewski, Dutton and Debebe (2003). With regards to the present thesis, one could argue that care workers might be most likely to find meaning in their work following social interaction events in

which, for example, they were able to see difference they make to their clients' lives. In any case, the pleasant feelings experienced during task performance did not appear to contribute to this process.

The only outcome which was found to be predicted equally by *both* types of positive emotional experience was self-efficacy. Research on the self-efficacy construct has shown that the most powerful source of self-efficacy information comes from our own attempts to control our environment, in other words, our previous experiences of success or failure in a given domain (Bandura, 1977; 1997). Given that successfully handling client through social interactions seems to be as important an aspect of the care worker's job as successfully performing the actual tasks which are listed in their job description and individual care plans, I believe that it makes intuitive sense that both types of positive emotional experience should contribute to a boosted sense of confidence in the ability to carry out the job in hand.

Lastly, the analyses presented in Chapter 6 reveal that the reporting of prolonged positive mood (and associated smiling and positive thoughts) was predicted by the intensity of socially-oriented and not task-oriented positive emotional experiences. At a glance, it is not immediately obvious these outcomes would be predicted by socially-oriented rather than task-oriented positive emotions. One could speculate that the emotions that result from social interactions are more intense than task-related emotions, and that only the most intense positive emotional experiences are likely to have an impact that lasts throughout the day. The results I presented in Chapter 6 reveal that indeed, socially-oriented emotions were on average more intense than their task-oriented counterparts. According to such a hypothesis, there might be a kind of 'threshold-effect' whereby only emotional experiences which reached a certain level of intensity would be likely to have a lasting impact on well-being; task-oriented emotions would be, on average, less likely to be intense enough to reach this threshold. One could speculate that task-oriented positive emotions are more short-lived phenomena which have more localised and immediate effects on an individual's task performance (for instance, providing contextually-relevant motivation and insights) whereas socially-oriented positive emotional experiences tend to be more episodic experiences in which a pleasant social interaction event may prime the worker towards enjoying or engaging in similar subsequent interaction sub-events (Frijda, 1993) with the same individual and / or with other individuals, thereby having longer-lasting repercussions on overall mood. The fact that such a great number and variety of social interactions events (as compared to task-related events) were reported in the diaries (see Chapter 5) may provide some indirect evidence for this kind of effect. Alternatively, the observed patterns may be attributed to the

particular nature of the work carried out by the sampled population, such that the socially-oriented emotions only had a longer-lasting impact in this study because these are the types of emotions which happen to be experienced most intensely in care work. Perhaps, due to the highly client-facing nature of care work, social interactions with clients are the causes of the most intense positive emotions which are experienced on the job (as well as being the most frequent causes of these experiences, see Chapter 5), whereas the positive emotions which result from carrying out tasks tend to be less intense because, relative to other occupations, in care work these tasks might be less challenging or require less use of skills. In any case, I believe further real-time studies of positive emotional experiences at work are needed to specifically investigate the possibility that certain types of positive emotional events have longer-lasting effects on mood than others.

9.3.3. Practical Implications of Differentiating Between Socially-Oriented vs. Task-Oriented Positive Emotions

One thing that these findings suggest is that socially-oriented positive emotional experiences may give rise to outcomes which are more obviously or more directly relevant to the individual's interests, rather than necessarily to those of their organisation, at least in the short-term. For instance, socially-oriented positive emotions were found to promote pro-social or helping behaviours which (in light of what I have said above) one could argue might be aimed at forming or consolidating social relationships. These may either enhance or detract from the workers' immediate performance, depending on the context (see also Lucas & Diener, 2003). In some cases, time spent in pleasant social interactions and in forming social relationships at work may be directly beneficial to the organisation. In highly client-facing work such as care work, for instance, customer satisfaction is likely to be a desirable goal, and outcomes of emotional experiences (such as pro-social behaviours) which are seen as fostering this goal would most of the time be considered desirable. However, in other cases, engaging further in social interactions or providing extra help or care, may disrupt or detract from performance, making these emotion-related behaviours counterproductive to the aims of the organisation (see section 8.1.1 in Chapter 8). Some of the other outcomes associated with socially-oriented positive emotions seem also to be more directly tied in with the individuals' own well-being: for instance, enhanced self-esteem, enhanced long-lasting mood and an enhanced sense of meaning.

Task-oriented positive emotional experiences, on the other hand, may be more likely to give rise to creative and useful insights and prompt workers to persist with their tasks, and so might be desirable for enhancing performance and productivity in the short-term, making them particularly attractive to the organisations' interests.

An implication of this is that fostering task-oriented positive emotional experiences at work (for example, by providing workers with tasks that suit their skills and needs) may have clear, directly beneficial results for the organisation. Fostering the kinds of positive emotional experience that result from pleasant social interactions, on the other hand, may have different consequences, the desirability of which would depend on the context. Having said this, the most important thing to remember is that in the long run most positive emotional experiences at work are likely to be desirable for both the worker *and* their employing organisation, since all of the above-listed outcomes ultimately benefit both parties (see section 8.1 in Chapter 8).

9.3.4. Conclusions

Overall, I believe that differentiating between different types of positive emotional experience at work may, as much as anything else, provide a useful heuristic for understanding the incidence of these experiences in workplaces. I have proposed a classification based on the observed differential patterns of antecedents and supported by evidence in the literature about the functions of different types of positive emotional experiences. I believe the functional element of this classification might help explain why although most positive emotional experiences are likely to benefit both the worker and their organisation in the long run, in the short-term some may primarily benefit the individual's goal of forming social relationships, and others may benefit the individual's goal of task performance and therefore have a more direct and obvious beneficial impact on the organisation's goal of maximising productivity.

I would argue that in work settings, such a classification of positive emotions would be more informative than, for example, one which consists of the categories joy and love (see Diener, et al. 1995), and easier for managers to make sense of intuitively. However, I am not suggesting that all positive emotional experiences at work would necessarily fall under one or the other of these two categories. I believe, given the shortage of studies on this topic, that we would benefit from further work to address the following questions: How independent are these two types of positive emotional experience (bearing in mind that, as I suggested in Chapter 5, some

positive emotions such as pride might be associated with both social interactions and task performance)? Are socially-oriented and task-oriented positive emotions opposite ends of the same dimension, or do they represent independent dimensions? How many other dimensions of positive emotional experience are there? The fact that some of the emotion words did not seem intuitively to belong semantically to either category suggests that there may be more dimensions that were not captured by the broad categorisation of event types that was adopted here.

In any case, I believe the present classification is valid and practical because, as I have shown, (i) it is based on the observed patterns of antecedents of positive emotional experiences; (ii) it is coherent with current theoretical positions on the functions of positive emotions, and (iii) it may provide a useful heuristic in applied contexts for understanding the likely outcomes of different types of positive emotional experience. I am not, however, purporting to provide a definitive classification. The interpretations made here are relatively tentative and need to be explored further in future research.

9.4. Positive Emotions in Care Work vs. Positive Emotions in Other Occupations

Although this thesis is based on empirical work that was conducted within a specific occupational sample, throughout this thesis I have often discussed the results as if they applied to all types of workers. Many of the findings I have presented are largely consistent with existing recent theoretical and empirical work on positive emotions, so I would argue that there is no strong reason to suppose that most of the findings would not also apply to other occupational groups. Having said this, some of the findings may apply more than others. I will now briefly evaluate to what extent these findings may be specific to care workers, and suggest ways in which the positive emotional experiences of workers in other occupations might differ.

9.4.1. Care Work: A Highly Client-Facing Job

One of the most notable findings of this thesis relates to the importance of social interactions as proximal causes of positive emotional experiences at work. In the vast majority of diaries that were completed by care workers, the social interactions that were reported involved clients rather than co-workers; only a relatively small number of interactions involved other colleagues and, quite notably, only one event which involved a supervisor was reported. This reflects the nature of the care workers' daily routine at work, where the bulk of time is spent making visits to different clients'

homes, and there is only periodic contact with other care workers during working hours (for example, when two care workers work together or ‘team-up’ on a particular visit) and relatively little contact with supervisors.

As I pointed out in Chapter 8, the importance of social interactions as causes of positive emotions has been highlighted from the general psychological literature on emotion (Clark and Watson, 1988; Kemper, 1978; Parkinson, 1996; Shaver, Wu, & Schwartz, 1992). This suggests that, to the extent that any job involves social contact, social interactions may also be a major source of positive emotions for workers in that job. However, in less client-facing jobs, positive emotions may be more likely to arise instead from social interactions with colleagues and supervisors. In occupations where workers work in groups or teams, it may be worth in future work investigating how positive emotions are transmitted between workers, as I suggested in Chapter 8 (see e.g. Totterdell, Kellet, Teuchman & Briner, 1998; Totterdell, 2000).

On the other hand, in some occupations workers may have relatively few social interactions with clients or co-workers (for example, workers in virtual organisations – see e.g. Trusko, 2002). To investigate the claim that socially-oriented positive emotions constitute a distinct dimension of positive emotional experience with their own specific functions and outcomes (see section 9.3. above), it may be worth studying these kinds of populations. Do these solitary workers miss out on any of the beneficial positive emotion-related outcomes associated with social interactions which I have outlined in this thesis? In the absence of social interactions, what are the most common sources of positive emotions at work in these groups?

9.4.2. Performance-Related Positive Emotions in Other Occupations

Although the results of this study suggest that care workers do experience positive emotions whilst carrying out some of their tasks (particularly the more skilled tasks), it may be that in some occupations, the incidence of such task-oriented positive emotions is greater than in care work, and perhaps more common than their socially-oriented counterparts. It seems likely that this might be particularly the case in occupations which involve high skill use, such as art (Csikszentmihalyi, 1996), sport (Jackson, 1996), music (Bakker, 2005), writing (Perry, 1999), and so on.

In some occupations, workers may have far more autonomy and more responsibility than care workers do; this is especially likely to be the case for workers in managerial positions. Perhaps in roles where workers have more autonomy in organising their daily goals and objectives, the achievement of these goals might be a particularly important source of positive emotional experiences on a day-to-day basis.

As I have discussed elsewhere in this thesis, many theories of emotion highlight the importance of goals, and goal achievement is thought to be an important source of positive emotions (see e.g. Carver & Scheier, 1990; Power & Dalgleish, 1997). It may be worth examining these processes in more depth than I have done in this thesis, for example by looking at whether the personal significance or importance of each goal attained moderates the corresponding positive emotional experience (see Harris, Daniels & Briner, 2003).

9.4.3. The Relevance of Needs and Values

Although in this thesis I did not explicitly examine the perceived importance or significance of events on an event-by-event basis, I did take more general measures of the workers needs and values which, as I have shown, were found in some cases to affect the experience of positive emotions in reaction to events that were relevant to those needs (e.g. workers with a high need for affiliation experienced more intense positive emotions in response to social interactions). This highlights the importance of examining specific dispositional differences that may affect positive emotions in different contexts. This thesis has shown that, in care workers, some of the most influential dispositions are the need for affiliation and, to a lesser degree, the extent to which they see their work as calling.

However, it seems plausible that in other occupational groups, other needs or values might be more influential. Although the need for affiliation and seeing one's work as a calling was found to predict differences in positive emotional experiences in care workers, is it likely that the same effect would be observed in investment bankers? To the extent that the typical sources of positive emotions may vary from one occupation to another, one could argue that the types of dispositions that influence these experiences might also be different. For instance, the investment bankers who experience the most intense positive emotions might be those with a high need for achievement, or perhaps those who see their work as career (focusing on advancement) rather than a calling (see Wrzesniewski et al. 1997).

9.4.4. Outcomes of Positive Emotions in Different Occupations

The cognitive and behavioural outcomes of positive emotions that emerged from the diary studies with home care workers are fairly general, and in most cases supported by existing literature, so there is no strong reason to believe that the same beneficial effects would not apply to the positive emotions experienced by workers from other

occupations. For instance, insights (Isen, 1987), helping behaviours (Isen & Baron, 1991; Fisher, 2002) and self-efficacy (Baron, 1990) have been recorded previously as outcomes of positive emotions in different populations.

What might be worth investigating, as I suggested above, is whether outcomes which I have argued might be specific to certain types of positive emotional experiences would be observed in occupations where those particular types of experience are rare. For instance, in the absence of socially-oriented positive emotions, where do solitary workers derive their self-esteem from, and are they less likely than other workers to be able to find or construct meaning in their work?

It may be that there are other discernible cognitive and behavioural effects of positive emotions in work settings, which did not emerge from this thesis but which might from work in other occupational populations. For instance, in an experimental setting Baron (1990) demonstrated that positive emotional states could facilitate business negotiations and reduce interpersonal conflict. Further research on the real-time experience of positive emotions across different occupations may help to elucidate further beneficial and desirable outcomes of positive emotional experiences at work.

9.5. Closing Remarks

I hope this thesis has illustrated the fact that positive emotions, despite being complex phenomena to study, play a number of important roles in work settings and cannot afford to be neglected by organisational researchers any longer. The research this thesis has presented was relatively exploratory, and it has produced a wide range of findings. However, I believe the fundamental underlying messages can be summarised in the following points.

First, positive emotions at work are not the same thing as job satisfaction. These are two separate constructs with different causes and consequences and it is time that researchers, practitioners and managers finally realised this.

Second, studying positive emotions at work as momentary reactions to work events can provide us with specific information about the proximal causes of feeling good at work; these reactions, however, do not just depend on the events themselves, but also on a number of dispositional factors as I have shown.

Third, positive emotions can have immediate consequences for work performance and they also, it seems, play a role in a number of other psychological processes; their beneficial effects may last well beyond their pleasant momentary experience.

Fourth, although positive emotions are not as differentiated as their negative counterparts, I have argued that it may be possible to distinguish between the positive emotions which we feel when involved in social interactions at work and those which we feel when engaged in performing our tasks at work.

Fifth, and given the inadequacies of the existing literature on this topic, I firmly hope that this thesis will help to encourage and pave the way for further research on positive emotions at work. I have suggested here a number of possible ways forward.

“Psychologist-managers should work to cultivate positive emotions in themselves and in their employees not just as end-states in themselves, but also as a means to achieving individual and organisational growth and optimal functioning over time”.

Fredrickson (2000b, p. 3)

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Appendix A: The Qualitative Diary



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A World Health Organization Collaborating Centre in Occupational Health

The Work Motivation Diary

Thank you for taking part in this study.

Over the next two weeks, on days when you go to work, I would like you to keep a diary of positive emotions you experience at work. On each day, for each positive feeling you experience that is caused by an event at work, please answer a small number of questions.

It doesn't have to be a particularly strong or long-lasting emotion; simply one that was strong enough for you to notice. (If you still cannot think of any, leave the entries for that day blank.)

TIP: It is best to answer questions 1-6 for each positive event as soon as possible after the positive event occurs, because your memory of it will be more accurate. If it is impossible for you answer them immediately, please try to answer them on your next work break. If you can, please answer Question 7 for each event at the end of the day last thing before you go to bed or, at the very latest, first thing before you start work the next morning.

Please be as frank as possible. Remember these diaries are anonymous, so don't put your name on the diary. I will not keep a record of which diary belongs to any particular person.

Please bear in mind that the more that you write on each occasion, the more useful the diary will be to the research project, and I believe the process will be helpful to you too.

If you have any doubts at all about how to fill in the diary, please contact me immediately:

Jan Jo Holden-Peters

Tel: 07974 736297

E-mail: lixjjh@nottingham.ac.uk

Q1. THE DATE TODAY: day _____ month _____

Q2. THINK OF AN EVENT TODAY AT WORK THAT MADE YOU FEEL GOOD, AND THINK ABOUT WHAT POSITIVE FEELING(S) YOU EXPERIENCED. TO WHAT EXTENT DID YOU EXPERIENCE THE POSITIVE EMOTIONS THAT ARE LISTED BELOW? (using the scale provided, please circle a number for each emotion). If the way you felt is not described by the words below, please use your own words (in the two last boxes where it says “Other”)

Not at all **A great deal**

Proud	1	2	3	4	5
A liking for something	1	2	3	4	5
A liking for someone	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Enjoying something	1	2	3	4	5
Content	1	2	3	4	5
Pleased	1	2	3	4	5
Optimistic	1	2	3	4	5
Happy	1	2	3	4	5
Other (please specify) _____	1	2	3	4	5
Other (please specify) _____	1	2	3	4	5

Q3. WHAT WAS THE EVENT AT WORK THAT CAUSED YOU TO FEEL THAT PARTICULAR WAY? Please describe in your own words.

Q4. ARE THERE ANY CIRCUMSTANCES THAT WOULD HELP EXPLAIN WHY THAT PARTICULAR EVENT MADE YOU FEEL THE WAY IT DID? FOR INSTANCE, WAS IT RELATED TO SOMETHING ELSE THAT HAPPENED RECENTLY? If so, please describe in your own words. If not, please go to the next question.

Q5. OTHER THAN MAKING YOU FEEL GOOD, DID THIS EVENT MAKE YOU ACT OR MAKE YOU FEEL LIKE ACTING IN SOME WAY? DID IT MAKE YOU THINK ABOUT ANYTHING IN PARTICULAR OR MAKE IMAGINE YOUR FUTURE WORK IN A DIFFERENT WAY? Please describe in your own words.

Q6. ABOUT HOW LONG AFTER THE EMOTION ARE YOU FILLING IN THIS PAGE?
_____ HOURS _____ MINUTES

his final question is to be answered at the end of the day you experienced that emotion.

Q7. DID THE POSITIVE EMOTION(S) AFFECT HOW YOU FELT OR HOW YOU BEHAVED FOR THE REST OF THE DAY? IF SO, HOW? Please describe in your own words.

Appendix B: The Quantitative Diary



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A World Health Organization Collaborating Centre in Occupational Health

The Work Motivation Diary

Thank you for taking part in this study.

What do I have to do?

Over the next two weeks, please take this diary with you every time you go to work. When you are at work, please answer a small number of questions in this diary **whenever you experience a feeling** (positive or negative) which is caused by an event at work. Please answer a page of the diary for every strong feeling you experience at work.

When do I fill in a diary page? Do I have to fill in a page every day I work?

It may be that on certain days there is *more than one* event which causes you to feel strongly, so on those days, please *fill in a page* for each event. Likewise, it may also be the case that on certain days you do not experience any feelings at all at work, so on those days *you wouldn't need to fill in a page*.

How long after the feeling should I fill in the page?

- For a positive or pleasant feeling which you experience at work, please fill in questions 1 to 6 immediately, and 7 at the end of the day (before going to bed).
- For a negative or unpleasant feeling which you experience at work, please answer questions 1, 2, 3, 8 and 9 immediately, and 10 at the end of the day (before going to bed).

I'm very busy at work, how can I possibly answer any questions immediately?

It is best to fill in the diary as soon as possible after the event occurs, because your memory of it will be more accurate (it is often hard to remember exactly how we felt about something in the heat of the moment when we try to recall it later on). Do your best, where possible, to answer the questions within 20 minutes of feeling the emotion. If this is not possible, make sure you answer them at the next possible opportunity.

Does it matter how many pages I fill in over the two weeks?

No, what matters most to me is that you be as *honest* as possible. If you only experience two feelings at work over the two weeks, then only complete two pages of the diary; if you experience as many as eight, then please complete eight sheets. Bear in mind that the more honest you are on each occasion, the more useful the diary will be to the research project. Remember these diaries are anonymous, so don't put your name on the diary. I will not keep a record of which diary belongs to any particular person.

If you have any doubts at all about how to fill in the diary, please don't hesitate to contact me immediately: Jan Jo Holden-Peters Tel: 07974 736297 E-mail: lixjih@nottingham.ac.uk

THE EMOTIONAL EVENT DIARY

1. THE DATE TODAY: day ____ month ____

2. ABOUT HOW LONG AFTER THE EVENT ARE YOU FILLING IN THIS PAGE _____

3. DID THE EVENT MAKE YOU FEEL:
(please tick one) GOOD ____? (If so, please ONLY answer questions 4, 5, 6 and 7)
or BAD ____? (If so, please ONLY answer questions 8, 9 and 10)

4. IF YOU FELT GOOD, WHAT WAS THE EVENT AT WORK THAT MADE YOU FEEL GOOD?
(please tick the one that applies, or briefly describe it in your words next to "Other:")

Cheering up a service user	<input type="checkbox"/>	Helping a service user	<input type="checkbox"/>
Being thanked by a service user	<input type="checkbox"/>	A service user's relative appreciating my work	<input type="checkbox"/>
Completing a daily task at work	<input type="checkbox"/>	A service user being pleased to see me	<input type="checkbox"/>
Seeing a service user improve	<input type="checkbox"/>	Chatting or joking around with a service user	<input type="checkbox"/>
Carrying out a "nursing" task	<input type="checkbox"/>	Applying knowledge or skills	<input type="checkbox"/>
Meeting a new service user	<input type="checkbox"/>	Making a service user feel special or "young again"	<input type="checkbox"/>
Linking up with another CCA	<input type="checkbox"/>	Making a breakthrough with a difficult service user	<input type="checkbox"/>
Other:		<input type="checkbox"/>	

5. TO WHAT EXTENT DID THE EVENT MAKE YOU EXPERIENCE THE FOLLOWING PLEASANT FEELINGS?
(using the scale provided, please circle a number for each emotion)

Scale: 1 = Not at all 2 = A little 3 = Moderately 4 = Quite a bit 5 = Extremely

Proud	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Content	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A liking for something	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Pleased	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A liking for someone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Optimistic	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Enthusiastic	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Happy	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Enjoying something	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Other:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rewarded	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						

6. OTHER THAN MAKING YOU FEEL GOOD, DID THIS EVENT MAKE YOU FEEL LIKE DOING ANYTHING
IN PARTICULAR? DID IT MAKE YOU THINK ABOUT YOUR FUTURE WORK IN A DIFFERENT WAY?
(please tick as many as apply or briefly describe it in your words next to "Other:")

Gave me extra motivation in my work	<input type="checkbox"/>	Made me want to do more for my service user	<input type="checkbox"/>
Made me feel useful and important	<input type="checkbox"/>	Gave me an insight into (how to improve) my work	<input type="checkbox"/>
Made me think my job is worthwhile	<input type="checkbox"/>	It had no real effect on me	<input type="checkbox"/>
I felt more confident in my ability as a CCA	<input type="checkbox"/>	Other:	<input type="checkbox"/>

7. This question is to be answered at the end of the day you experienced the positive feeling.
DID THIS PLEASANT EVENT AFFECT HOW YOU FELT OR HOW YOU BEHAVED FOR THE REST OF THE DAY (BOTH AT WORK AND AFTER WORK)? (please tick as many as apply or briefly it describe in your words next to "Other:")

I felt good for the rest of the day	<input type="checkbox"/>	It had no effect on how I felt throughout the day	<input type="checkbox"/>
I was still smiling later on in the day when I thought about what happened	<input type="checkbox"/>	The positive feeling was lost by the time I got home	<input type="checkbox"/>
I was still thinking about the event later in the day	<input type="checkbox"/>	Other:	<input type="checkbox"/>

8. IF YOU FELT BAD, WHAT WAS THE EVENT AT WORK THAT MADE YOU FEEL BAD?
(please briefly describe it in your words)

9. TO WHAT EXTENT DID THE EVENT MAKE YOU EXPERIENCE THE FOLLOWING UNPLEASANT FEELINGS? (using the scale provided, please circle a number for each emotion)

Scale: 1 = Not at all 2 = A little 3 = Moderately 4 = Quite a bit 5 = Extremely

Angry	1	2	3	4	5	Disappointed	1	2	3	4	5	Worried	1	2	3	4	5
Frustrated	1	2	3	4	5	Unhappy	1	2	3	4	5	Embarrassed	1	2	3	4	5
Disgusted	1	2	3	4	5	Depressed	1	2	3	4	5	Other:	1	2	3	4	5

10. This question is to be answered at the end of the day you experienced the unpleasant feeling.
DID THIS UNPLEASANT EVENT AFFECT HOW YOU FELT OR HOW YOU BEHAVED FOR THE REST OF THE DAY (BOTH AT WORK AND AFTER WORK)? (please briefly it describe in your words)

Appendix C: The Questionnaire



INSTITUTE OF WORK, HEALTH & ORGANISATIONS

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<http://www.i-who.org>

*A World Health Organization Collaborating Centre in Occupational
Health*

European Agency's Topic Centre on Stress at Work



The Work Motivation Questionnaire

When should I complete this questionnaire?

Please complete this questionnaire **after** you have completed the two-week diary. This questionnaire makes up the second and final stage of the Work Motivation Project being undertaken on Homecare work in Nottinghamshire Social Services.

What do I have to do?

In completing the questionnaire, please be as honest and frank as possible. Do not dwell too long on any one question, as it is your initial thoughts and feelings that are most valuable. Follow the instructions for each question. Upon completion of the questionnaire place it in the envelope provided, alongside the diary, and return it to the researcher.

Please feel free to contact any member of the research team should you have any queries at:

Jan Jo Holden-Peters

Tel: 07974 736297

e-mail: lixjjh@nottingham.ac.uk

Thank you for completing the questionnaire.

SECTION ONE

I would be grateful if you could provide the following details:

AGE: _____ years MALE ☐ FEMALE ☐

HOW LONG HAVE YOU WORKED AT YOUR ORGANISATION? _____ Years

IF LESS THAN A YEAR, STATE HOW MANY MONTHS / WEEKS: _____

TYPE OF CONTRACT: FULL-TIME ☐ PART-TIME ☐

WHAT IS YOUR POSITION (JOB TITLE) WITHIN YOUR ORGANISATION? _____

HOW MANY HOURS A WEEK DO YOU WORK? _____

SECTION TWO

Below are a number of statements that describe different aspects of your job.

Q1. To what extent do you agree with the following statements? Please tick one response for each item

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My work colleagues are supportive					
I can have a laugh with my work colleagues					
I can have a laugh with my clients					
My work allows me to meet a wide variety of people					
I have a lot of contact with my work colleagues					
In my work I cheer up a lot of people					
While working it is possible to talk to others					
My work colleagues appreciate my work					
My clients appreciate my work					
In my work, I get the opportunity to help colleagues					
In my work, I get the opportunity to help clients					
There is enough variety in my work					
I have the freedom to plan my work the way I want to					
The job provides me with a suitable level of responsibility					
The job provides me with ample opportunities to use my skills					
The job provides me with new challenges					
My job is often interesting and exciting					
I think my job makes a difference to other people					
There are opportunities for further training in my job					
Any training that is provided is generally useful					
I feel that I have good job security					
I think the basic pay level is fair					
There are good opportunities to progress in my organisation					
I often learn from the experiences I get from work					
I feel as though I'm constantly developing in my work					
My supervisor is understanding when I have a problem					

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My supervisor appreciates my work					
I'm happy with the level of help I get from my supervisor					
I'm happy with the amount of feedback I get about my work					
The management is concerned about staff well-being					
I trust the management to make the right decisions					
My working hours are flexible					
I generally like the physical work environment where I work					

SECTION THREE

This question consists of a number of words that describe different feelings and emotions that you might experience, and refer to your life in general, **not** specifically related to your work.

Q2. Read each item and then insert the appropriate number into the box next to that word. Indicate to what extent you generally feel this way, that is, how you feel on average, in your life as a whole. Use the following scale:

1
very slightly
or not at all

Cheerful

Daring

Strong

Lively

Bold

Enthusiastic

Happy

Proud

Delighted

Energetic

3
moderately

Attentive

Excited

Alert

Confident

Fearless

4
quite a bit

joyful

determined

interested

inspired

concentrating

5
extremely

SECTION FOUR

Below are a number of statements about your preferences concerning the way you work.

Q3. Please tick one response for each item that best indicates how often the statement applies to you.

	Never	Almost never	Seldom	Sometimes	Usually	Almost always	Always
I do my best work when job assignments are fairly difficult							
I try very hard to improve on my past performance at work							
I take moderate risks and stick my neck out to get ahead at work							
I try to avoid any added responsibilities on my job							
I try to perform better than my co-workers							
When I have a choice, I try to work in a group instead of by myself							
I pay a good deal of attention to the feelings of others at work							

	Never	Almost never	Seldom	Sometimes	Usually	Almost always	Always
I prefer to do my own work and let others do theirs							
I express my disagreements with others openly							
I find myself talking to those around me about non-business related matters							
In my work assignments, I try to be my own boss							
I go my own way at work, regardless of the opinions of others							
I disregard rules and regulations that hamper my personal freedom							
I consider myself a "team player" at work							
I try my best to work alone on a job							
I seek an active role in the leadership of a group							
I avoid trying to influence those around me to see things my way							
I find myself organising and directing the activities of others							
I strive to gain more control over the events around me at work							
I strive to be "in command" when I am working in a group							

SECTION FIVE

Below are a number of statements that describe your feelings about your job and about your organisation as an employer.

Q5. To what extent do you agree with the following statements? Please tick one response for each item that best reflects your degree of agreement or disagreement with the statement given.

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I will actively look for a new job within the next 12 months							
I often think about quitting homecare work altogether							
I am quite proud to tell people I work for Notts Social Services							
I sometimes feel like leaving Notts Social Services for good							
I am not willing to put myself out just to help Notts Social Services							
I feel myself to be a part of Notts Social Services							
In my work I like to feel I am making some effort, not just for myself, but for Notts Social Services as well							
The offer of a bit more money with another employer would not seriously make me think of changing jobs							
I would not recommend a close friend to join Notts Social Services							
To know that my own work has made a contribution to the good of Notts Social Services would please me							
All in all, I'm satisfied with my job							
In general, I don't like my job							
I see my homecare work as a calling							

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
I see my homecare work as a job, nothing more							
Mainly, I work here as a means to progress my career							
I view my job as just a necessity of life, much like breathing or sleeping							
My work is one of the most important things in my life							
I view my job primarily as a stepping stone to other jobs							
In general, I like working here							

THE END

If you have anything else you would like to add or any comments to make on this questionnaire, please write them below.

THANK YOU FOR COMPLETING THE QUESTIONNAIRE
YOUR TIME AND ASSISTANCE ARE VERY MUCH APPRECIATED

Researcher contact details:
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Prof Amanda Griffiths Tel: 0115 8466637 e-mail:Amanda.Griffiths@nottingham.ac.uk

Appendix D: Covering Letter



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*A World Health Organization Collaborating Centre in Occupational
Health
European Agency's Topic Centre on Stress at Work*

The Work Motivation Project

What is the Work Motivation Project?

It is a project being undertaken by the Institute of Work, Health & Organisations (I-WHO), from the University of Nottingham, with Direct Care of Nottinghamshire Social Services. The main aim of the project is to identify the positive aspects of Homecare work with a view to improving the experience of the job for the workers themselves. In a nutshell, Community Care Assistants (OCAs) are being asked to say what it is about their work that makes them feel good or bad, and what impact these good or bad feelings have on their life as a whole.

What is involved?

At the beginning, you will be given an envelope containing, amongst other things, a diary and a questionnaire. Should you agree to take part, the project will consist of two stages.

- 1) First, for a period of 2 weeks beginning from the moment you decide to take part, every time there is an event at work which makes you experience a feeling or emotion, you should answer some brief questions in the diary (fill in one sheet per event) about the event and how it made you feel.
- 2) At the end of the two-week period, once you have completed the first stage, you should fill in the questionnaire which will ask about the positive aspects of your work, your preferences in working style, and your well-being.

How much of my time would it actually take up?

You will have to take the diary with you to work every day and fill it in as and when an event takes place which makes you feel good or bad. This might mean writing a little bit every day (but not necessarily, because some days there may be no events, in which case you would not need to write anything), but this won't take more than a couple of minutes on each occasion. The diary mostly just involves ticking a few boxes. The questionnaire to be filled in at the end of the study will require about 5-10 minutes to complete.

What should I do when I have finished the diary and the questionnaire?

Place the completed diary and questionnaire in the freepost addressed envelope provided and simply post it. Please make sure you complete and return the questionnaire as well as the diary, the information from the diary is not as useful to me without your questionnaire.

PTO

1 of 2

Who will be able to read what I write in the diary and questionnaire and what will it be used for?

The information which is obtained from the questionnaires and diaries that are returned to me may be used in academic papers and in a project report for management, which will contain recommendations of how to maximise the positive aspects of homecare work. Please bear in mind that everything will be quoted anonymously and any references that could identify you will be removed. Only I, as the researcher, will have access to your questionnaire and your diary once you have completed it.

Do I have to take part in the Work Motivation Project?

Participation in this project is entirely voluntary. You are by no means obligated to take part and if you decide to take part and later on change your mind, you may withdraw at any point if you so wish. However, your participation is extremely valuable, both to me as the researcher and also, I believe, to yourself as a worker, seeing as you will be contributing towards improving the quality of life of homecare workers.

Is there anything else in it for me if I decide to take part?

I realise that asking you to fill in a diary on working days for 2 weeks does involve a certain amount of effort and commitment on your part, even though the diary contains few questions. Therefore, all those participants who take part and complete both parts of the project, will each receive a £ 10 cash prize, once they have returned the completed diary and questionnaire.

Many thanks for your time,

Researcher
Jan Jo Holden-Peters

Tel: 07974736297

e-mail: lixjjh@nottingham.ac.uk

Appendix E. Evaluating the Methodology

As I pointed out at the end of the introductory chapter of this thesis, emotions are very difficult phenomena to study because of their momentary, transient nature. In Chapter 2 I argued that diaries may constitute a promising emerging methodology for studying positive emotions at work, since they provide the most practical and accurate access that is available to workers' online emotional experiences, and are less prone to the biases which affect retrospective reports of emotional experiences. In this Appendix, I would like to evaluate some of the strengths and weaknesses of the diary-based approach that was adopted in this thesis for measuring emotional experiences in the workplace, some of which refer to more general features of diaries as tools for collecting self-report data, and others which are specific to the way in which I used them for this thesis. Since this evaluation will be based on my own experience, this section will be somewhat narrative in style.

One of the strengths of diary methods have already been pointed out in Chapter 2 of this thesis: diary methods are flexible. They may be used to obtain relatively detailed qualitative open-ended accounts of people's emotional experiences, but they can also be used to obtain simple, structured self-reports of these experiences, measured in terms of scores on a number of pre-determined quantitative variables. In this thesis, I used diaries in both of these ways in order to address the aims which I set out in Chapter 1. I will now review in turn the utility of the two different types of diary approach which I adopted in this thesis. I then address briefly some issues of the validity of the measurements of positive emotions, before completing the section with some concluding remarks about the use of diaries for measuring (positive) emotional experiences at work.

A Qualitative Diary Approach to Measuring Positive Emotions at Work

Some of the aims of this thesis involved conducting exploratory work to uncover the types of events that typically produce emotions and to uncover some of the short-term cognitive and behavioural outcomes associated with these emotions. Given the scarcity of existing research on positive emotions at work, I argued in Chapter 2 that this kind of exploratory, bottom-up empirical work would be vital in the early stages of studying this topic (see also Briner, 1999). The qualitative diaries that were employed in the first stage of data collection for this thesis were largely successful in achieving these aims.

Participants were allowed to describe in detail the event and sub-events which had given

rise to the positive emotional experience; they were also able to make a written record of any immediate changes in their thoughts during the experience and to document any behaviours that accompanied it. Given that the self-reports were produced in real-time (i.e. during or immediately after the emotional experience) it seems likely that this method maximised the degree of accuracy as far as possible.

From the descriptions that were provided by the participants, it was possible to extract recurrent themes through content analysis. From the event descriptions, it was possible to see that some similar situations could mean different things to different people on different occasions. Let us take for instance, the event of a care worker carrying out an everyday task whilst chatting to her client. Some participants might have identified the fact of being engaged in a task where they could use their skills as the cause of the positive emotion they experienced; to others; the social exchange with the client might have been the cause, or simply the fact that they were helping someone. This highlights the importance of appraisal (e.g. Lazarus, 1991) in emotional reactions, and of being aware when measuring emotional experiences that it is not the events per se that produce emotions, but rather what they mean to the individual in question. Qualitative diary descriptions were therefore an excellent way of capturing this kind of data.

In some cases, it was possible to glimpse the dynamic nature of emotional experiences; many diaries contained rich descriptions of not one discrete event, but a number of linked events, all part of a single emotional episode (Frijda, 1993). However, some other participants were not quite so eloquent in their descriptions.

This last point, I would argue, highlights the importance of matching the choice of methodology to the nature of the target sample. Asking for rich descriptions of emotional events in written form assumes that the participant is capable of being articulate in writing about their emotional experiences. In the interviews that were conducted initially to invite the carers to take part in the study, all 23 interviewees appeared to be confident at articulating themselves verbally, and seemed equally prepared to take part in the diary study. However, only 9 of these 23 actually completed their diaries, and among these 9 some appeared to have been more confident in their writing skills than others: some descriptions consisted of barely a couple of words (e.g. "service user said thank-you"). Another possible explanation for the short descriptions that were obtained from some participants, and indeed another factor to bear in mind when adopting a qualitative diary methodology, relates to the nature of the work itself. Care work is an extremely hands-on and physically demanding job; as I have pointed out elsewhere in this thesis, care workers often struggle to complete the tasks listed on each clients' care plan within the time allocated for each visit. This might reasonably raise the question of how the care

worker would find the time to document their emotional experiences by producing written descriptions in a diary. For this thesis, participants were given clear and repeated instructions about the importance of making entries into the diary as soon as possible after the relevant emotional experience; where it was not possible to make the entry immediately following the emotional event(s) (for example, if the care workers were in a hurry to complete their remaining tasks), they were asked to make the entry during their next break. Even if this may have increased the possibility that the entry was less accurate than if it had been completed at the time, it seems likely that such a self-report would still be far more accurate and less affected by biases than ones where the experience being recalled had occurred days or weeks previously (as is often the case in traditional surveys of affect at work). Overall, however, it seems plausible in hindsight that a qualitative diary design such as this one might be better suited to occupational populations where (a) the workers are more used to using the written form to express themselves, and (b) the workers would be more likely to be able document their experiences *immediately* after they take place (admittedly, in any work context this would rarely be straightforward, but it might be easier in some jobs than in others).

Lastly, the design adopted here assumes that people are able to identify themselves the causes and consequences of their emotional experiences. I will return to this issue in a moment. Before doing so, however, I will first review the utility of the quantitative diary approach that was adopted for the second wave of data collection in this thesis.

A Quantitative Diary Approach to Measuring Positive Emotions at Work

Some of the other aims of this thesis made it necessary to obtain quantitative data, for a number of reasons which I discussed in Chapter 2. For instance, I was interested in exploring the factor structure of positive emotional experience at work, which necessarily involves quantifying these experiences. I was also interested in examining the relationships between positive emotional experiences and a number of other constructs which are typically measured in quantitative terms (e.g. dispositions, attitudes, etc.). Also, having conducted exploratory work to uncover the types of events and short-term outcomes associated with positive emotions, these relationships were examined statistically. Overall, the quantitative diaries that were employed in the second stage of data collection were well suited to addressing these types of aims. Given that the constructs of interest had been provided previously in the qualitative diary study, when reporting their positive emotional experiences all that the participants had to do was tick boxes and circle numbers on a scale where appropriate. Once again, since the self-reports

were produced in real-time (i.e. during or immediately after the emotional experience) it seems likely that this method maximised the degree of accuracy as far as possible.

Perhaps the greatest strength of the quantitative diary approach was that although it still required participants to take the diary to work with them and to make entries following a positive emotional experience, its tick-box format made it infinitely more practical and convenient to complete. As a result, a relatively large sample size was obtained, even without the same face-to-face contact between the researcher and the participant that was used to recruit participants for the qualitative diary study. Of the 218 participants who received a diary and questionnaire pack, 83 returned them completed (although 6 of these 83 cases had to be eliminated for the final sample as I discussed in Chapter 5). This is a response rate of 38%, which in the UK is fairly standard for most questionnaire-based surveys, so considering that this was a 2-week diary study this figure seems very satisfactory. The precautionary steps that were taken, such as the incentive scheme described in Chapter 2, may have helped to maximise compliance and reduce drop-out. However, I should point out here that an unfortunate consequence of using incentive schemes in this study was that it became necessary to track which diary belonged to whom, to be able to verify which participants had completed the study. Given that the diaries were anonymous, and the participants were deliberately instructed not to provide their names, it became necessary to track the diaries with serial numbers, which participants were asked to make a note of and later provide when I was compiling a list of the diaries which had been returned. However, this process did not run particularly smoothly, as many participants appeared to have misunderstood this instruction, and many completed diaries were left unidentified; as a result, correctly allocating the corresponding cash prizes was a challenging task. I would recommend researchers using anonymous diaries who are intending to include an incentive scheme to think this issue through carefully beforehand.

The final sample of 77 provided 514 diary entries. All in all, this sample size was deemed sufficient for investigating the relationships between variables at both the level of the diary entries and of the participants. The Affective Events Theory (Weiss & Cropanzano, 1996) was tested with data at the level of the participant only i.e. $n = 77$. To the very best of my knowledge, at the time of writing this thesis this represents the largest sample of homogenous workers that has been used to test the propositions of the Affective Events Theory as was intended by its authors i.e. over time. In terms of its role in providing this data, I would argue that the quantitative diary design which was adopted here can be considered a success.

However, besides the advantages of the quantitative diary design, this approach also entailed a small number of shortcomings. For instance, in distilling the descriptions from the qualitative diaries into discrete phrases that were intended to capture the essence of each event category or each outcome construct, a lot of the meaning of these descriptions was lost. For instance, “it provided me with an insight into the job” might be a useful phrase for encompassing descriptions such as “I realised that little things done from day to day are just as important as the big issues”. However, when presented as an option in the checklist used in the quantitative diaries it may have been hard to interpret by some of the care workers. As I pointed out in Chapter 6, although in the qualitative diary study (from where these outcomes were derived) insights into one’s job were the most commonly elicited immediate outcome, in the quantitative diaries they were the least often elicited. In this way, the rigid structure which quantitative diary methods impose may on occasions stifle the richness that is associated with emotional experience (see Lazarus, 1999).

Another issue that researchers using diary methods must bear in mind is that of the veracity of entries. Although the simplicity of the quantitative diary design made it easier to make entries, it also may have made it easier to *fake* entries, for example by completing these entries long after the emotional experience had occurred. More to the point, although the guaranteed cash incentives that were offered for completion of the diary study may have increased the rate of compliance, it may also have increased the desire to fake entries, for example by completing these entries at a single point in time and returning the diaries so as to claim the incentive prize. Having said this, there was very little evidence of this having occurred; only a couple of diaries showed some indication that the participant had ‘bent the rules’ in this way and these were discarded from the final sample. Nonetheless, this is an issue which must be taken into account before adopting this kind of diary approach, and one which highlights the risk of adopting cash incentive schemes; as I described in Chapter 2, one potential solution to this problem is to use electronic diaries which give time-stamps to each entry, thus making it harder to fake the self-reports retrospectively.

Overall, the quantitative diary design that was adopted for this thesis was relatively successful as a tool for collecting data to address some of the aims outlined in Chapter 1. Nonetheless, as outlined, a couple of issues did emerge during the data collection process which I would argue should be noted by researchers interested in adopting this kind of diary approach. In a moment I will extract some final conclusions about the overall utility of diary methods for studying (positive) emotional experiences at work. First, however, I

would like to make some comments about the issue of the validity of the self-report data obtained in this thesis.

Issues of Validity in Self-Report Diary Data

Larsen and Fredrickson (1999) have argued that emotions are theoretical constructs that are only probabilistically linked to observable indicators. Emotions, they point out, can be represented by a number of different measures, but they are not equivalent, nor can they be reduced to, any single measure on its own. Rather, the construct validity of emotions is built by providing converging evidence across the various components of emotion which I outlined in Chapter 1, ideally using a combination of self-report and non-self-report methods (Larsen & Fredrickson, 1999; Lucas et al. 2003).

Some researchers have argued that self-reports, besides being the easiest and most efficient way to assess positive emotions, are also perfectly reliable and valid measures of these (Lucas et al., 2003). In Chapter 2 of this thesis I argued that self-reports currently represent the only meaningful methods of capturing peoples' positive emotional experiences at work, despite their potential shortcomings. Self-report measures cannot capture reliable data about *all* the different components of emotion, nor is the data they produce necessarily 100% free of error. However, they do represent the *only* method of accessing the subjective experiential component of emotions and of capturing the interpretation or appraisal of events that precedes this experience. Furthermore, they are the only practical way of measuring the changes in cognition and behaviour which may accompany positive emotional experiences in real-life work settings. In future years, it may become possible to develop practical non-self-report methods of measuring positive emotional experiences in every day work settings, and these may provide an excellent complement to the kind of self-report measures that were adopted in this thesis. At present, however, the only converging evidence which non-self-report methods contribute unfortunately remains restricted to laboratory or experimental conditions, and self-reports remain the only realistic option for researchers studying positive emotions at work.

As Larsen and Fredrickson (1999) point out, "perhaps the strongest evidence for validity is when the theory of [a] particular emotion can be used to generate predictions about the conditions under which that emotion will be evoked, or the type of person for whom that emotion will be most easily evoked" (p. 44). I believe this thesis has provided enough evidence that such predictions can be generated from self-report data; some of the work that was conducted in this thesis was initially exploratory, but the patterns

observed do nonetheless enable us to make the kinds of predictions listed by Larsen and Fredrickson (1999), and facilitate the development of theories of positive emotional experience at work.

Having argued that self-reports in general provide a sufficiently valid measure of positive emotions, it seems pertinent to also address the issue of whether people's attributions of the causes and outcomes of these emotions are also equally valid. Much of the exploratory work in this thesis was carried out based on the assumption that people are able to accurately pinpoint the aspects of situations at work that made them feel good, and to identify the consequences of these pleasant feelings, but is this assumption justified? How accurate are people's reports about causal influences on their feelings, judgments and behaviours (see White, 1989)? Some emotion theorists have suggested that people form mental models about their emotional experiences, which may include information about how events or situations are appraised and information about some of the goal-relevant consequences of these emotional experiences (Power & Dalgleish, 1997). Based on these kinds of 'mental model' theories, some researchers have argued that we can exploit peoples' knowledge of their own mental models to get an indication of how they attribute their emotions to aspects of the work environment, and how they might in turn attribute changes in their behaviour or well-being to their emotional experiences (Harris, Daniels & Briner, 2001). Furthermore, in this thesis it seems likely that taking real-time assessments of these mental models of causation maximised the likelihood that participants' attributions of causation were accurate.

Lastly, there is an issue about whether completing a diary in itself may have an effect on the phenomena under investigation, thus affecting its validity. There is the possibility of a confounding *reactance* effect: in other words, participants' experiences or behaviour may change as a result of participating in a diary study (see Bolger et al., 2003). For instance, care workers asked to take part in an ongoing study of positive emotional experiences at work might conceivably start to pay a lot more attention to the enjoyable aspects of their work, which might in turn affect their emotional experiences or even, one might argue, their attitudes towards their job. If this were the case, this effect could potentially pose a threat to the validity of the findings of a diary study such as this one. However, there are a number of reasons why I do not believe that this issue was likely to be problematic for the current thesis. Firstly, as Bolger et al. (2003) have pointed out, there is currently very little available evidence that reactance really does affect a diary's validity. Litt, Cooney and Morse (1998) noted that although participants in their study reported being more aware of the behaviour that was being monitored in their diaries, the behaviour itself was not reactive. Gleason, Bolger & Shrout (2001) in turn reported that

any changes attributable to reactance were only short-lived, and dissipated within two or three days. These authors argued that reactance does not tend to be a significant problem with diaries because of a *habituation* process: once the novelty wears off, the process of completing a diary has little effect on the experiences or behaviours being monitored. Secondly, although some studies have shown that reflecting on emotional experiences may have a therapeutic effect on the individual (e.g. King, 2001; Pennebaker, 1997; Pennebaker & Seagal, 1999), in these studies emotional experiences were invariably reported in extended written accounts or narratives. These kinds of effects have not been observed in diary studies which use simple quantitative ratings, such as the kind which I used in the second stage of my data collection (which in turn provided the data for the majority of analyses in this thesis). My third reason for discounting this reactance hypothesis is perhaps the most conclusive; the research I have presented in this thesis is in fact part of a much larger study in which both positive and negative emotional experiences were measured, and so there would seem little reason to believe that the participants would have begun systematically focusing on one rather than the other aspect of their emotional experiences at work. However, whilst on the subject, I will point out that I believe that the abovementioned studies that document the therapeutic effects of writing about emotional experiences (e.g. King, 2001; Pennebaker, 1997; Pennebaker & Seagal, 1999) may hold great untapped potential for organisational interventions, and as such, the potential effects of diary methods warrant further study for theoretical as well as methodological reasons.

In conclusion, I believe I have provided strong enough arguments for the use of self-report diaries in this thesis as perfectly valid measures of care workers' positive emotional experiences and their correlates. I will now conclude this section with some closing remarks about the use of diaries in research on workplace emotion.

Using Diaries to Study Positive Emotions at Work: The Verdict

In this section I have argued that, for this thesis, diaries provided a useful and reasonably practical way of obtaining relatively accurate and valid accounts of care workers' positive emotional experiences at work; the two different types of diaries that were adopted each succeeded in addressing specific aims of the thesis as set out in Chapter 1. The qualitative diaries allowed me to conduct some very basic exploratory work concerning the correlates of positive emotional experience, uncovering a number of relevant constructs. The quantitative diaries in turn allowed me to test the propositions of a particular theory of positive emotion at work which highlights the crucial role of

momentary reactions to discrete events at work, and is therefore dependent on accurate measurements of these momentary experiences. It also allowed me to explore the structure of positive emotional experience at work, and to explore the role that individual factors play in these emotional experiences.

Overall, however, how recommendable are diaries as standard methods for assessing workers positive, and indeed negative, emotional experiences at work? The answer to this question, I believe, depends on the aims of the researcher or practitioner, and particularly on the time and resources which are available to him or her. To obtain the number of diaries that were needed to statistically test a variation of the Affective Events Theory (Weiss & Cropanzano, 1996) required a large amount of time and effort (in terms of contacting all participants to ensure they were on track with completing the study), not to mention the financial resources that were expended to provide a further incentive for the workers to take part! The qualitative diary study, which required prior meetings with the participants to explain the protocol, was also very time-consuming. Overall, the data collection process for this thesis was long and relatively drawn out. Without expending these kinds of resources, I believe a far lower response rate would have been obtained, and it would have been harder to draw any generalisable conclusions from any data obtained. The time and resources available are always likely to be a limiting factor on the number of completed diaries which can be obtained and analysed.

If a researcher or practitioner is simply interested in obtaining a measure of a worker's emotional well-being for its own sake, or if emotional experiences are a minor rather than the central subject of interest in a given study, then it may make more sense to assess these retrospectively, as is usually the case in this type of research (Fisher, 2002; Kahneman, 1999), as long as the researcher acknowledges the biases and inaccuracies which such measures of emotion are prone to. However, if a researcher or practitioner is interested in a particular aspect of workers' emotional experiences, such as the precise aspects of work events that give rise to them, or any associated short-term changes in cognition or behaviour which might have implications on performance, then I believe that diaries will always capture these processes far more accurately than other retrospective methods of assessment.

For theory building and testing, large scale diary studies such as the ones I have conducted here may be a valuable tool; however, for standard organisational audits of employee emotional well-being the impracticalities of obtaining large samples of diaries will probably outweigh the benefits. On the other hand, having ascertained the theoretical importance of emotional events at work, both in the short-term (immediate effects on cognitions and behaviours) and long-term (cumulative effects on attitudes), practitioners

interested in the proximal causes of emotions in a particular workplace may be able to adopt reduced and simpler formats of the kind of diary design used for this thesis. For example, asking participants to report emotional events in real-time for 2 days rather than 2 weeks would be likely to obtain higher response rates, yet also provide descriptions of the emotionally desirable or undesirable events of a given workplace, and of the correlates (cognitive and behavioural) of emotional experiences, which can then be analysed and used to help design organisational interventions.

Should a researcher decide that a diary approach might be useful for their particular research question, great care and consideration must be taken in the design of the study, since the use of diaries can involve a number of pitfalls as I have described above. Badly designed diaries studies can involve considerable effort and yield very little information (Bolger, et al. 2003). Ultimately, researchers need to be aware of the transient nature of emotional experiences, and of the shortcomings of retrospective reports of these experiences, and then ask themselves whether the increased accuracy and depth of information which diaries may provide can be offset against the not inconsiderable costs involved in obtaining diary reports.

Appendix F. The Operationalisation of Situational Antecedents

In the quantitative diary study that provided empirical data for this thesis, a particularly unique approach was adopted in the operationalisation of the situational antecedents of positive emotional experiences. This entailed reducing, through factor analysis, the 14 event categories that participants were provided with to identify the source of their positive feelings; the factor analysis revealed five factors, of which only two (social interactions and task performance) were retained for analyses. As I described in Chapter 5, for each of these two factors, an average score (determined by the number of events within that factor which were checked) was calculated for each emotional experience and these scales were used as units of analysis. In other words, the degree to which a given situation would be classified as a social interaction or a task-related event depended on how many items within each scale had been checked by the participant.

One could argue that this constitutes an imperfect way of quantifying a situational antecedent of a positive emotional experience. For instance, using an interval scale for such a measure may be misleading. More specifically, is it really meaningful to assume that a situation in which a carer identified three items within the social interaction scale (e.g. *helping a client*, *being thanked by a client* and *chatting or joking with a client*) is necessarily 'three times more of a social interaction' than one where the carer only identified one of these items? The answer to this would probably be 'no'.

However, I would argue that these scales *can* help to provide approximate indications of the extent to which a given situation had a given underlying *theme*. This idea is based on the assumption within a number of theories of emotion that emotional experiences often tend to be driven by a series of events coherently organised around a single underlying theme (Frijda, 1993; Lazarus, 1991). As I pointed out in Chapter 1, this coherent and dynamic series of emotional experiences is often referred to as an *emotional episode*, a situation in which a single event of emotional significance leads to the unfolding of a series of sub-events, also with emotional significance. Frijda (1993) argues that during an emotional episode, the person's attention is focused on issues related to the underlying theme. The nature of these themes has been described far more often for negative emotions (see Lazarus, 1994). For instance, the emotion anger is said to be characterised by the theme of "a demeaning offence against me or what is mine". For example, when a worker reacts with anger to a particular event such as hearing strong criticism from a supervisor, small subsequent events such as snide comments from

other co-workers which are perceived as being consistent with this theme may take on increased, and perhaps unwarranted, emotional significance.

It seems likely that the same principle would apply to positive emotional episodes: if a care worker arrives to visit a client and as she walks through the door she immediately notices how pleased her client seems to see her, she may be primed to notice and enjoy subsequent social interaction sub-events with that client.

Right from the beginning of my data collection for this thesis, I attempted to pick out themes from participants' descriptions of the emotion-inducing events which they provided in the qualitative diaries (see Chapter 4) and, as I described in that chapter, these descriptions often seemed to describe a sequence of related events rather than one single discrete event. However, in order to provide meaningful response categories in the quantitative diaries, I deliberately attempted to keep these themes relatively specific and not too general or over-inclusive; as a result, 14 different categories were picked out. Later on, the results of the factor analysis of the quantitative diaries suggest that these 14 categories could be further reduced into a far smaller number of themes, as I have described above (see also Chapter 5).

I supported this final classification for a number of reasons. Firstly, it helped to distil the many event categories into a number of units that was more manageable for further analyses e.g. the multilevel modelling which I presented in Chapter 5. Analysing 14 situational antecedents simultaneously would have been cumbersome to present and to make generalisations about. Secondly, out of the factors (or themes) which emerged, the two which I retained for analyses were found to have acceptable internal consistencies as scales. Statistically, these defined scales appear to provide reliable measurements of participants' attributions of the abstract themes as antecedents of their emotional experiences. Thirdly and very importantly, I favoured this classification of situational antecedents because the factors or themes which emerged were conceptually coherent: the event descriptions that formed a factor which was later labelled 'social interactions' each seemed to relate very clearly to a common concept or theme, that of interactions between the care workers and their clients which would be likely to be deemed as pleasant or positive. Likewise, the other event descriptions that formed factors also seemed intuitively to relate to distinct themes, for example, task-related situations. As I have described above, these themes seem in turn to correspond fairly neatly with what the existing literature already tells us about the situational antecedents of positive emotions. I have argued in Chapter 9 that there are theoretical reasons to believe that social interactions and task performance might constitute distinct sources of positive emotional experiences.

It is hard to know whether the items of these scales would necessarily each have equal weighting for capturing the essence of an abstract underlying theme, but I would argue that using the average of all items within a scale would provide a useful heuristic at least. To illustrate this point, I will use an example of two hypothetical scenarios, using items from the two aforementioned scales (after each item, I include in brackets a letter to denote the factor from which the item was taken, S for Social Interaction and T for Task): In Situation A, the care worker reports a positive emotional experience after the following sequence of events, each of which she identifies in her diary: The client is pleased to see her arrive (S) → She spends time chatting or joking around with her client (S) → She successfully completes her tasks (T) → The client thanks her (S). In Situation B, the care worker reports a positive emotional experience after a different sequence of events, which she also identifies in her diary: She carries out a nursing task (T) → To do so, she applies skills (T) → Her client thanks her (S). Although each of these positive emotional experiences may have been preceded or accompanied by a number of sub-events from either scale, I would argue that in Situation A the predominant theme underlying the emotional experience would be the social interaction between the care worker and her client, whereas in Situation B, the predominant underlying theme would be the successful performance on the task. By using an average score of the items of either scale for each event therefore, these scores help to provide a rough estimate of the extent to which a particular emotional event had a particular underlying theme.

It is hard to deny that this level of analysis represents a relatively crude examination of the sub-events that are said to make up an emotional episode. Unfortunately, quantitative approaches to studying emotions appear to have this shortcoming; they are particularly inadequate at capturing the dynamic nature of emotional experiences (Lazarus, 1999) (see also Appendix E). For instance, the kind of ‘tick-box’ approach that was adopted in the quantitative diaries in this thesis did not permit an examination of the chronological sequences of different sub-events. For this reason, I would argue that future studies that seek to examine and understand the situational causes of positive emotional experiences at work would benefit from a greater emphasis on qualitative methods that allow the researcher to observe precisely *how* the unfolding of events and sub-events is related to emotional experiences, perhaps enabling a closer look at the underlying themes that are said to drive emotional episodes (Lazarus, 1991). As I have mentioned in Chapter 8, emotion narratives may provide a useful starting point for this kind of theory-building work (see Baumeister & Newman, 1994; Baumeister, Stillwell & Heatherton, 1995; Lazarus, 1999).

Having said that, I believe the conceptualisation of situational antecedents that was adopted here was sufficient for the aims of this thesis: it helped to uncover some of the main underlying themes in the situational antecedents of positive emotional experience, whilst providing internally consistent measures of these themes. It provided what I believe was a practical and parsimonious way of operationalising these situational antecedents.

In conclusion, I believe the way in which events were operationalised here as variables was imperfect but probably sufficient for the needs of the current thesis. However, I would also suggest that in developing theories about the situational antecedents of positive emotional experiences, more qualitative work is needed, perhaps returning to the kind of diary study conducted in the preliminary stages of this thesis (a point I have argued a number of times throughout this thesis).



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