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To Penny,

Finally, I can say

"Here it is!"

with love &

the deepest gratitude

Jane

14/11/03.

Mood and Stereotyping:
A self-categorization theory approach

Janet Helen Tweedie

A thesis submitted for the degree of Doctor of Philosophy
of The Australian National University

November, 2003

DECLARATION

The research reported in this thesis is my own
and has not been submitted for a higher degree
at any other institution

A handwritten signature in dark ink, appearing to read 'J. Tweedie', is written over a horizontal line.

Janet Helen Tweedie

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Dedication

This thesis is dedicated to my late father, Robert Tweedie,
who made me question and gave me psychology.

cognito ergo sum

I feel, therefore, you are

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Abstract

This thesis examines the role of mood in the social psychological process of stereotyping. We ask the question: how does an individual's mood affect the way in which they perceive both others and themselves in terms of their social identity? This area of research originally developed as an attempt to integrate findings from two important fields: affect and cognition, and group behaviour and stereotyping. Importantly, the overarching meta-theory in which these areas of research have traditionally been embedded is that of the cognitive miser (Fiske & Taylor, 1984).

Previous research has conceptualised stereotypes as somewhat rigid, inflexible by-products of the way in which we perceive our social world. Research has focussed largely on the categorization process as an information reduction mechanism that enables us to cope with our cognitive limitations. Along with this emphasis, stereotyping has been inextricably linked to prejudice and discrimination. About the same time as the cognitive miser metaphor was dominant in stereotyping research, a resurgence of interest into the effects of mood on cognition was in place. This quickly grew into a large and influential body of work that focussed on the way in which mood influences information processing strategies. Positive moods were linked to heuristic processing and negative moods to substantive processing.

The integration of these areas of research led to the examination of mood's effects on stereotyping. As stereotypes were seen as a form of cognitive shortcut, they were associated with heuristic processing while individuation was associated with substantive processing strategies. Findings in the area reflected the idea that happy moods are more likely to lead to stereotyping and sad moods to individuation due to these associations.

An alternative to the cognitive miser approach however, is that of the perceiver as meaning-seeker (Bruner, 1957; Oakes, 1987; Oakes & Turner, 1991). This

conceptualisation is critical to the understanding of categorization within both social identity theory and self-categorization theory. This thesis examines mood and stereotyping from this alternative point of view. We conclude that previous research has failed to account for the truly social psychological context within which stereotypes are formed, maintained and applied, and the social reality of group membership of which stereotypes are a product. Further, the prevailing analysis of mood almost exclusively in terms of its effects on information processing, ignores the link between mood and self-concept which could create a more meaningful interpretation of the role of mood in stereotyping.

This thesis presents four experiments which show support for its main argument: that mood influences the use of stereotypes not due to its effect on information strategy choice, but through a context dependent process of self-definition as a group member. Specifically, this thesis argues and shows support for, the idea that mood serves as a contextually relevant aspect of self-concept at the level of social identity due to the match (fit) between perceived in-group valence and valence of the prevailing mood-state.

CHAPTER 1

Introduction and overview of the thesis

1.1 Introduction

Prejudice, discrimination, derogation, stereotyping. Distrust, dislike, disgust, contempt, hatred. Intergroup relations and strong emotional reactions seem to come in a package: we rarely find one without the other. Decades of research have focused on the ways in which members of certain groups feel about, behave towards, and describe members of other groups. Although we know that groups can also inspire heroism, selflessness, altruism and shared joy, the feelings and descriptions associated with groups have overwhelmingly been assumed to be negative. It is the very negativity of our behaviour towards, and feelings about, outgroups that has warranted the intense investigation of prejudice and discrimination. Within that investigation, stereotypes have been seen as one more piece of evidence that perceiving people in terms of their group memberships is a bad thing. Strong negative emotions and negative stereotypical descriptions have always been considered part and parcel of the intergroup experience – as integral to our social group relations.

Yet, interestingly, the investigation of the role of emotion in intergroup relations and stereotyping has focused not on those feelings elicited by the intergroup experience itself, but on the day-to-day emotions and moods that are incidental to social contact. Moods brought about by the weather, by being kept waiting, by running late, by being given an unexpected reward, or by simply reminiscing about a past life event have been the focus of almost the entire literature on mood and stereotyping, mood and ingroup bias, and mood and intergroup relations.

This thesis will attempt to reevaluate this state of affairs and bring together these two apparently disparate conceptualizations of mood and its influence on intergroup behaviour. At the end of this thesis it will be argued that there is no such thing as incidental mood, mood that is unrelated to the social context in which it is experienced, regardless of the source of that mood state. We will argue that all mood is integral, all mood is context, all mood is meaning. In making this argument we hope to present an original and alternative approach to the study of mood and its influence on intergroup behaviour.

1.2 The topic of this thesis

This thesis examines the role of mood in the process of stereotyping. In doing so, it intercepts two areas of social psychological research. The investigation of mood and its influence on human behaviour has been a part of social psychology for many decades, however interest had waned towards the middle of last century due to the emphasis on observable behaviour that was dominant at that time. In the 1970's this

area of research enjoyed a resurgence of interest as psychologists in general began to examine the cognitive processes believed to be behind observable behaviour. In social psychology, researchers also focused more on cognitive processes at this time, a time in which the perceiver was conceptualized as a “cognitive miser”. The emphasis now shifted to the explanation of how we, as human information processors, coped with our limited cognitive ability in the face of the overwhelming amount of stimulus information that we had to contend with. The study of mood and its effects on social behaviour was incorporated into this theoretical framework and the focus turned to examining how mood may interfere with information processing.

Stereotyping and prejudice have also been on the agenda of the social psychologist for most of the last century, from the early 1920’s through to the present day. As stereotyping was easily documented and observed through written responses and checklists, the study of how we describe members of groups grew throughout the early part of the century and blossomed within the cognitive miser era. An incredible amount of research has been carried out into the content, aetiology, application, suppression and cause of social stereotyping. Within this huge research area lays a small niche that this thesis will examine – the role of mood in the stereotyping process.

In this first chapter we will briefly discuss the theoretical basis on which this thesis rests. We will overview previous approaches to the study of mood in stereotyping and present our alternative viewpoint along with the aim of this thesis. The final

section of this chapter will present an outline of each of the four theoretical chapters and a brief summary of the four chapters that present the empirical program of research.

1.3 Previous approaches to the study of mood and stereotyping

Research into the role of mood in stereotyping has previously emerged very much from within the meta-theoretical framework of the cognitive miser. In the case of mood research, from the early associationist theories of Bower (1981) and Isen (1984), through the “mood-as-information” theory of Schwarz and Clore (1988), and the information processing strategy models of Fiedler (1990) and Forgas (1995), mood has been characterized as mediating the style of information processing that perceivers use in any particular task. In particular, happy mood is seen to lead to the use of heuristic processing and sad mood to the use of systematic processing. Simultaneously, in stereotyping work, there has been a focus on the use of stereotypes as judgmental heuristics (Bodenhausen & Lichtenstein, 1987; Bodenhausen & Wyer, 1984), cognitive shortcuts (Fiske & Neuberg, 1990) and resource saving devices in information processing (Taylor, Fiske, Etcoff & Ruderman, 1978).

The combination of these approaches has led to the development of models of mood and stereotyping that centre on the link between happy mood, heuristic processes and the use of stereotypes. There are four main types of model. Firstly, researchers such as Stroessner and Mackie (1993) present an argument based on cognitive limitation

and cognitive overload. In this case, perceivers are unable to process information systematically in happy moods due to happiness overloading the cognitive system. The second model, presented by researchers such as Schwarz and Clore (1988), argues that happy mood informs the perceiver that everything is “okay” in the current psychological situation and therefore, systematic processing is unnecessary. Perceivers in happy moods could process systematically if they needed to however, as there is no indication for the use of cognitive resources, they choose not to.

Similar to Schwarz and Clore’s approach, Bodenhausen (1990) presents an argument that rests on the motivation to avoid cognitive effort. Again, although happy perceivers could use systematic processing, and will use it if the situation calls for a more careful examination of the data, mostly, perceivers in happy moods will avoid cognitive effort as a matter of course.

Finally, Bless (1996, 2001) has extended Schwarz and Clore’s “mood-as-information” account to explain the use of stereotypes in happy moods without the assumption that happiness automatically leads to lessened cognitive processing. Bless’ argument rests on the assumption that people who are happy tend to rely on their “general knowledge structures” which include scripts, heuristics and stereotypes. Bless states that this model has the ability to explain findings that indicate happy mood increases creativity and problem solving ability, as well as account for the happy mood/stereotyping effect.

This thesis will examine these approaches in detail, along with some of the more peripheral research undertaken in the field. We will conclude that previous models of mood and stereotyping fail to take into account the truly social psychological context within which stereotypes are formed, maintained and applied. We will find that what is missing from this analysis is a conceptualization of both stereotyping and affect as meaningful processes that stem from our experience as social beings, striving for understanding and coherence in our interactions with the social world. We then present an alternative framework that we believe more adequately accounts for the findings in previous work and allows a new and fresh approach within which to extend the analysis of the role of mood in stereotyping. This alternative is self-categorization theory (Turner, Hogg, Oakes, Reicher & Wetherell, 1987).

1.4 Self-categorization theory and the role of fit and positive distinctiveness in stereotyping

Self-categorization theory argues that social behaviour is regulated by an underlying cognitive mechanism whereby people define themselves in terms of either their personal, idiosyncratic self, or their shared category membership. Specifically, social identity is the cognitive mechanism that causes intergroup behaviour. When a particular social identity is salient, we will define and perceive ourselves as more interchangeable with representatives of that shared category and we will self-stereotype according to relevant category dimensions. Further, we will define others as included within this shared category and, therefore, an ingroup member, or we will define them as different from the ingroup and, therefore, an outgroup member. Both

ingroup and outgroup others will be stereotyped according to the dimensions that define group relations in the present context. In other words, social identity causes stereotyping.

Importantly, self-categorization theory also details the way in which this cognitive mechanism occurs – how social identities become salient in any particular context. Salience is determined by an interaction of perceiver readiness and fit. Perceivers will actively choose a category that is relevant and likely to be confirmed by external reality. When that external reality fits within the comparative context currently available, and in terms of the normative content of the relevant category, then that category will become salient. We will use social categories to create meaning and to confer coherence on our social world in a relevant and informative way. Stereotypes then, are social categorical judgments, perceptions of people in terms of their group memberships and are fluid and context dependent in the same way as the categories that they define (Oakes, Haslam & Turner, 1994).

In addition, self-categorization theory recognizes the tendency of people to strive for positive self-definition (Tajfel, 1972, 1981). This search for a positively defined self includes our social self and therefore, social groups. People use social comparison to develop a positive social self through membership in a positive ingroup – this is termed “positive distinctiveness”. It is this process in particular that we believe is central to an alternative approach to the investigation of mood and stereotyping.

1.5 The aim of this thesis

In this thesis we will show that previous research on the role of mood in stereotyping has failed to take into account the crucial role of self-definition at the social level of identity as the central mechanism in stereotyping. The information processing view of both stereotyping and the influence of affect on social behaviour has led to a partial and inadequate explanation of mood's role in the stereotyping process. This thesis will present an alternative approach and some convincing evidence that the role of mood in stereotyping is not via its mediating effects on information processing but hinges on the concept of fit, a context dependent process of self-definition that takes into account self-concept in terms of current mood state and self-concept in terms of currently salient self-categorizations at the social level of identity.

1.6 Overview of the thesis

The thesis presents four theoretical chapters that review the historical background to stereotyping research and the substantial work done in the era of the cognitive miser, approaches to the study of mood and social processing, models of mood and stereotyping and finally, self-categorization theory and a reanalysis of the role of mood in the stereotyping process. Four empirical chapters follow that report the four studies of the research program. The last chapter of this thesis provides a recapitulation, some areas for future research and our final comments. We will now provide a brief outline of each of these chapters.

Chapter Two presents a review of the history of stereotyping and the information processing approach of the latter part of the 20th century. It shows how early stereotyping research, from Lippmann (1922), considered stereotypes to be rigid, inflexible and irrational. We review the theoretical approaches of Fishman, Vinacke, Asch and Allport and some of the important empirical work such as Katz and Braly (1933).

We then examine the seminal work of Tajfel (1969) and its huge influence on the direction of research over the next few decades – the era of the cognitive miser. Stereotypes were defined as inextricably connected to the process of categorization, and this process was seen to have as its main function, simplification and information reduction. Stereotyping was the result of heuristic, top-down processing, which saved cognitive resources, whereas individuation was evidence of systematic, bottom-up processing. Due to its use as a cognitive shortcut, stereotyping was expected to occur under conditions whereby the perceiver could not, or would not, use individuation. Inevitably, stereotyping was biased and generalized due to the fact that not all information was being used. Stereotyping was the least preferred option in person perception, one that would lead to negative impressions and invalid assumptions. This was the state of affairs in stereotyping research when an interest in the effects of mood on social information processing re-emerged in the late 20th century.

In Chapter Three we present the literature that was the mainstay of the resurgence of affect research in the 1970's and 1980's. It is shown that the research in this area was also dominated by the cognitive miser meta-theory, and the emphasis on the perceiver as cognitively limited. Mood effects are largely explained in terms of mood's influence on processing style. Again, the dichotomy of heuristic verses systematic processing is often used to explain outcomes. In Chapter Four, we go on to examine more closely the particular research that investigates the role of mood in stereotyping. The chapter deals with various empirical and theoretical approaches that have been put forward over the last two decades to explain the influence of mood on stereotypic judgments. In particular, the substantial research programs of Bodenhausen and colleagues, and Bless and colleagues are extensively reviewed.

Chapter Five presents our alternative approach to both stereotyping and the mood and stereotyping literature in the form of self-categorization theory (SCT) as described above. With an alternative way of looking at the stereotyping process comes a new approach to the problem of how mood influences this process. We present a detailed critique of previous research that helps to explain the robust finding that it is happiness that most commonly leads to stereotyping. In the final part of this chapter we put forward our own argument and the general hypothesis generated from it.

Chapters Six through Nine present the empirical work carried out in support of our theoretical argument and hypotheses. Four studies were conducted which aimed to test predictions drawn from a SCT approach to stereotyping and how mood affects

this process. Study One, presented in Chapter Six, aimed to show support for the argument that stereotyping is a context dependent outcome of the categorization process whereby perceivers categorize both themselves and others in terms of their group memberships when, and only when, those group memberships are made salient. Results showed that participants were much more likely to stereotype the target in the intergroup condition (in the context of seeing the target as an outgroup member) than in the interpersonal condition. Results also indicated that mood had no effect on stereotyping in this study.

Study Two, presented in Chapter Seven, was designed to examine the happy mood/stereotyping effect found so often in the literature. This study tested the idea that the implicit positive valence of the ingroup provides a match between self (mood) and the intergroup context that heightens salience for happy perceivers. Therefore, the study manipulated mood and group context, while holding constant an explicitly positive ingroup valence. Results supported the above hypothesis with an enhanced stereotyping effect evident for happy participants in the intergroup condition. Lower levels of stereotyping were found for participants in a neutral mood/intergroup condition. When the context was interpersonal rather than intergroup neither happy nor neutral participants showed evidence of stereotyping. Results of this study led to investigation of negative mood and negative group membership. If a positively valenced ingroup can enhance salience of the group context for happy perceivers, would it not also be possible that the opposite might

occur? Would sad perceivers experience heightened salience of the group context when the valence of the ingroup matched their self-concept, i.e.: was negative?

Chapters Eight and Nine explore this idea by presenting two studies that were designed to cross (in a 2x2 design) group valence and mood. Happy and sad participants were presented with either a positive or negative ingroup membership using either real groups (Study Three) or minimal groups (Study Four). In these studies the intergroup context remained constant and participants rated both themselves and an outgroup target on stereotypical dimensions. As predicted, happy perceivers refused to describe themselves in terms of a negative group membership and in fact re-categorized themselves as more like the outgroup to avoid such a negative group image (Study Four). Sad perceivers, on the other hand, were perfectly willing to describe themselves in terms of their group membership even when that membership was negative. All participants were willing to stereotype an outgroup target, further supporting the view that stereotyping is an outcome of a specifically intergroup context.

Chapter Ten presents a recapitulation, summarizes the theoretical and empirical implications of the research program, and puts forward suggestions for future research. We finish with some final comments about the wider implications of this research for a re-conceptualization of the role of mood in the stereotyping process. The analysis, begins however, in the following chapter where we examine the earliest stereotyping work and ask the question that is central to this thesis “When do we

stereotype?”. It is the answer to this question that has set the scene for the investigation into the role of mood in social judgment and stereotyping.

CHAPTER 2

Early stereotyping research, Tajfel and the social cognitive approach

2.1. Introduction

The aim of this chapter is to review stereotyping research from the early days of Lippmann (1922) and Katz and Braly (1933), through to that based on the cognitive or information processing approach to stereotyping. We begin the chapter with a review of early approaches to stereotyping, leading up to Henri Tajfel's seminal (1969) paper "Cognitive Aspects of Prejudice".

It is important to examine this early work for a number of reasons. Firstly, the review will show the historical background of stereotype research and the importance of this background to concepts and methodologies that are still very much in use today. Many of the ideas of modern research and theory can be traced back as far as Lippmann (1922), Asch (1952), Allport (1954), and Vinacke (1956). It is also interesting to note the way in which certain ideas and concepts were gradually elevated in explanatory status and some were all but ignored, only to resurface in different forms at a later date. Further, certain methodologies, such as the Katz and Braly checklist, have weathered disfavour to reappear as a respected tool of modern research.

More importantly, perhaps, an examination of the historical background of stereotyping illustrates the extent to which stereotypes and stereotyping have been linked to prejudice. This link has been central to the concept of stereotypes as bad (Ashmore & Del Boca, 1981; Hamilton & Trolie, 1986; Oakes & Turner, 1990), which in turn, has influenced both methodology and theoretical approaches to this topic. However, as many other reviews have been done on this work, the purpose of this part of the chapter is not to provide a detailed description and critique of early stereotyping research, but rather to set the scene and lay down themes that link the early work to modern interpretations and theoretical orientations in stereotyping.

Following this, we will examine stereotyping research in light of Tajfel's (1969) paper and the cognitive miser approach to human cognition that dominated the 70's and 80's. The approach taken to research in this era has had a significant impact on the conceptualization of mood effects on stereotyping. In particular it is the question "When do we stereotype?" and its answer, that is pivotal to the topic of this thesis. We will examine this question and the approaches to it that have influenced research on how mood affects stereotyping.

2.2. Early Stereotyping Research

The first part of this chapter will present a review of stereotyping research from the early part of the last century through to 1969 when Henri Tajfel published "Cognitive Aspects of Prejudice", the paper that was to become pivotal in changing the approach to the study of stereotyping. According to Oakes et al. (1994) early stereotyping research was characterised by three main areas of focus:

the content of stereotypes, the “kernel of truth” debate, and the search for a theoretical analysis of stereotyping. Other authors (Ashmore & Del Boca, 1981) have characterised early research as stemming from two conceptual frameworks: the socio-cultural approach and the psychodynamic approach. However early research is characterised, it is certainly true to say that very little of it took into account the cognitive aspects of the perceiver or “stereotyper”, except to infer a vague process of faulty and biased search for efficiency of judgment – “...a regrettable-but-useful time-and-effort-saving process...” (Fishman, 1956, p31). There was a clear focus on the content of particular stereotypes and the processes by which this content was learned by members of groups or individuals – could stereotypes be changed? There was also the question of the validity of this content – were stereotypes in some way true? And certainly there was the question of why humans stereotype in the first place – was it due to personality, ethnocentrism or a way for humans to understand and describe group relations? Although Allport mentioned the cognitive process of categorization as early as 1954, research along this line did not take off until after Tajfel’s 1969 paper.

Many researchers start an overview of early stereotyping approaches by quoting a passage from Lippmann (1922). Indeed, with good reason, the publication of his book “Public Opinion” is accepted as the starting point in the examination of stereotypes and stereotyping in social psychology. Lippmann’s theoretical analysis of the subject has gone on to influence three quarters of a century of research in some way or another. Ashmore and Del Boca (1981) state that Lippmann never gave a definition of the word “stereotype”, rather he articulated a

number of important ideas on the subject some of which can be seen in modern conceptualisations of stereotypes and stereotyping.

Firstly, Lippmann saw stereotypes as a way of simplifying and ordering perception and cognition. Indeed, a stereotype "...precedes the use of reason; is a form of perception, imposes a certain character on the data of our senses before the data reach the *intelligence*." (1922, p65, as cited in Ashmore & Del Boca (1981), italics mine). We see here, at the very beginning of research into the field, the idea that stereotypes are irrational (precede reason) and are able to influence thinking in a biased way (impose a certain character on the data). Although modern research has gone past the idea of stereotypes being irrational, the concepts of bias and distortion of data are still quite clearly in focus for some researchers.

Secondly, Lippmann saw stereotypes as social explanations or rationalisations of a person's position and cultural tradition. Certainly he saw stereotypes as steeped in social group relations and the justification for them. Again, this approach is reflected quite readily in modern research, especially that of the European tradition after Tajfel (eg: Yzerbyt, Rocher & Schadron, 1997; Yzerbyt, Schadron, Leyens & Rocher, 1994). Ashmore and Del Boca also state that Lippmann saw society itself as the ground for stereotype acquisition, that culture and society frame our perceptions and provide us with the content of our stereotypes. Finally, Lippmann saw stereotypes as belonging to the individual and that individual prejudices and biases could have an effect on the type or strength of these stereotypes.

For over a decade after Lippmann's book was published, very little research on stereotyping was done by social scientists. However, in 1933 Katz and Braly published a paper examining the content of stereotypes held by Princeton undergraduate students that gave the world of social psychology its first empirical study of stereotypes themselves. It also gave social psychologists a methodology that was to dominate stereotyping research for decades to come. The "Katz and Braly Checklist", or variations of it, is still used in modern research and was the cornerstone of the investigation into stereotype content and the kernel of truth debate.

The checklist consisted of 84 attributes that participants were asked to select from to form descriptions of ten national and racial groups. The Princeton students were asked to select those attributes from the list that would be typical of each of the ten groups. The students were also able to add attributes if they found that there were insufficient to form an "adequate description". They were then instructed to go back over each of their ten lists and mark out those words that seemed *most typical* of each group. Katz and Braly then used the results to form descriptions of each of the groups by extracting the twelve most frequently assigned traits from the five traits selected as most typical by the participants.

The authors then presented these descriptions and the percentage of students that selected each trait. Their discussion of the data focused on the degree of agreement among the students and concluded that this agreement "...seems too great to be the sole result of the students' contacts with members of these races." (p288). The authors believed that individual experience played only a small part

in the development of these stereotypes and that social learning is a much more likely explanation. They were also interested in the distinction between public and private attitudes, and the paper was actually an attempt to try to distinguish between these in terms of the racial stereotypes. In their conclusion however, they state that public and private attitudes appear to be “bound up together” (p289), and that the definiteness of the stereotype (a reflection of public agreement) bears little on the expression of prejudice towards a particular group. Prejudice where there is little agreement on characteristics is seen as a reflection of purely public attitude towards the group name whereas prejudice in the face of high levels of agreement may be due to either public or private attitudes or both (Katz & Braly, 1933). It can be seen here that the link between stereotypic attitudes and exhibited prejudice is clearly made, setting forth an agenda that is still reflected in research today and has been the focus of debate for many years.

It can also be seen that these ideas are firmly embedded in a more socio-cultural perspective, with stereotypes being seen as social products that are learned and then acted on. Research in this tradition, concentrating on the content of particular stereotypes and whether or not they could be said to hold any factual basis or were purely erroneous fictions, was in contrast to the more psychodynamic approach that examined stereotypes as products of a particular personality type or some intrapsychic motivation or drive.

Studies of the socio-cultural position included work by authors such as Meenes (1943), Seago (1947), and Buchanan (1951) on Americans’ stereotypes of various nationalities during and after the Second World War. The content of these

stereotypes was found to have changed where the relationship between America and those particular nations/groups had changed. Interestingly, the stereotype of Negroes had not changed over the same period and was very close to the original stereotype found by Katz and Braly in 1933 (Oakes et al., 1994). Prothro and Melikian (1955) and Sinha and Upadhyaya (1960) examined stereotypes held by other cultural groups (Arab and Indian students respectively) and again, changes were found across time and in the face of changing intergroup relations.

Katz and Braly's pioneering study of Princeton students was replicated twice in subsequent years, (Gilbert, 1951; Karlins, Coffman & Walters, 1969) and again, it was found that changes had appeared that reflected world events and intergroup relations. The studies of Diab (1963a, 1963b) however, probably show the most interesting point to be derived from the examination of stereotype content. Diab showed that stereotypes can change according to the number and types of groups that participants are asked to characterise. Oakes et al (1994) state that it is Diab's studies that "...suggest that stereotypes are not the result of indiscriminate, fixed prejudices but are context-dependent statements about intergroup relations that can be influenced by a complex set of intergroup comparisons." (p18). Unfortunately, these types of studies did not appear to further a theoretical approach to the study of stereotypes as they may have done. They tended to be understood in merely descriptive form and did little to extricate the study of stereotyping from the concept of prejudice.

This was also true of those studies that focused on whether or not there was any truth in people's descriptions of social groups. As seen above, Lippmann believed

that stereotypes were irrational and biased ideas, learned through culture but open to distortion via the individual and his/her personal prejudices. He also believed that these ideas were rigid and unchanging even in the face of “reality”. The search for some sort of match between stereotypes and “reality”, the idea that there could be at least a “kernel of truth” behind stereotype aetiology became a dominant theme in early stereotyping research. Various studies found evidence to suggest that stereotypes were, indeed, erroneous and inaccurate (Fernberger, 1948; Hartley, 1946; LaPiere, 1936; Rice, 1926-7), while others found at least some evidence to suggest that stereotypes may have an element of truth (Vinacke, 1949; Triandis & Vassiliou, 1967). Debate arises however, over the validity of measurement instruments in this work and the influence of the researcher’s own values in ascertaining the accuracy of any particular stereotype. Oakes and Reynolds (1997) state that establishing the validity or accuracy of stereotypes has been “a research nightmare” (p55) due to the difficulty of identifying reliable criteria. The authors go on to say that “...the human, social definition of a stereotype as accurate or not is a political act.” (p71) and not achievable through the measurement techniques of psychology.

At the same time as some researchers were examining both the content and alleged truth of stereotypes, others were focussing on the origin of prejudice and stereotyping from a psychodynamic point of view. As one approach to the theoretical study of stereotyping, the psychodynamic view was that prejudice (and therefore stereotyping) was formed through individual personality differences or particular intrapsychic drive states and motivations. The frustration/aggression hypothesis (Dollard, Doob, Miller, Mowrer, & Sears, 1939) proposes that

aggression arises from frustration and that when that aggression cannot be directed against the original source of the frustration, individuals will “displace” aggression onto similar or dissimilar targets such as social outgroups. These groups are then used as scapegoats and targets for prejudiced behaviour (Milner, 1981). Dollard et al., used the Freudian concepts of displacement and generalisation as the basis of this explanation of prejudice and used Nazi Germany as an example of its application. The German people, frustrated by the Treaty of Versailles, but unable to show aggression towards this source, displaced aggression onto Jewish society through generalisation of target. This then explained the horrific level of prejudice experienced by Jews in the lead up to and during the Second World War. Naturally, researchers in the socio-cultural tradition found much to debate in the idea that prejudice and stereotypes emerge solely from individually displaced aggression.

Similarly, the socio-cultural tradition had much to debate in another psychodynamic attempt to explain prejudice put forward by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950). Adorno et al., in the face of the atrocities of Nazi Germany, again drew upon Freudian theory to propose the existence of a certain personality type – the Authoritarian Personality – that developed in children of harsh and restrictive parents. These children then grew up to have two important traits: a rigid obedience to power-figures and a tendency to displace their ambivalent relationship with their parents onto weaker targets who are safe to hate (Milner, 1981). In this analysis prejudice firmly resides in the individual as an attitudinal and behavioural outcome of this particular personality type. The main criticism of this approach then, is its lack of ability to

deal with prejudice as an “en masse” social phenomenon (Milner, 1981). The very social relationships and events that Adorno et al. were trying to explain (the Holocaust) were to be the theory’s downfall. Were the authors really trying to state that an entire nation of people was subjected to harsh parenting and therefore that there was in some way a national personality type for Germans, or even for Nazis? Or, in fact, that prejudice towards Blacks in America could be explained in the same way? It is because of these issues that the psychodynamic view of prejudice (and therefore stereotyping) was eclipsed by the social cognitive approach that developed in the 1970’s. Although research into the Authoritarian Personality is still conducted today, especially in the area of prejudice, the social cognitive approach became dominant in the field due to its ability to better explain prejudice and stereotyping on a large scale.

The 1950’s saw the search for a theoretical analysis of stereotyping become more prominent within the socio-cultural tradition, with work by researchers such as Sherif, Asch, Fishman, and Vinacke. The Summer Camp studies of Sherif and colleagues (1967) are well documented in the history of social psychology and we will not deal with them in detail here. What is important to note about Sherif’s work is that he believed stereotypes to be the product of group relations, in particular, group competition and conflict of interest. Sherif also noted that stereotypes could be positive or negative depending on the relationship between groups at a particular time. Stereotypes served to reflect the relationship between groups from each groups’ own point of view and were therefore changeable over time and situation. They also represented a group’s own reality and therefore could not be compared to some “objective” reality, rendering the search for

“truth” futile. Although Sherif did not see stereotypes as inherently deficient, his investigation of them was a product of his investigation into group hostility and prejudice.

Up to this point it can be seen that almost all research on stereotyping intrinsically linked stereotyping to prejudice. Efforts to explain stereotyping were almost incidental to the explanation of prejudice and therefore stereotypes came to be seen by a number of researchers as intrinsically bad. It is wrong to be prejudiced, therefore it is wrong to hold stereotypes. At the very least, stemming from Lippmann, stereotypes are seen as distortions and biases even if they are positive. There were, however, some attempts to examine the process and function of stereotypes without the value label and on the premise that stereotypes are the result of quite normal processes which may or may not give rise to negativity and prejudice.

Fishman (1956) regarded stereotypes to be the product of a faulty process while conceding that that process is normal – as the author states “Have we never had snap-judgments... “pay-off” by turning out to be the correct choice, the best judgment, the “wise” thing to have done? Is not this some of the psychological stuff that human life is made of?” (p34). He also goes on to state that judgments that are subjective and uncritical are not necessarily wrong and that “Human beings, even when engaged in stereotyping, are probably attempting to be as thoughtful, as intelligent, and as aware of the facts at hand as their total situation will permit.” (p34). These are quite different ideas than those that see stereotyping as the product of some abnormal and pathological personality or as

the biased and misinformed representations of maligned outgroups. Although Fishman states that stereotyping is "...with respect to a rational-irrational motivational continuum...closer to the latter pole than to the former." (p43), he does not believe that continuum to be a particularly helpful one. In fact, Fishman's use of the term irrational to describe stereotypes is more in line with a definition of "uncritical" rather than "illogical" or "without reason".

Fishman also strongly believed that stereotypes were group related. In fact, he states that "...it may not be superfluous to underscore the fact that ... perceived group-relatedness is necessary both for the beginning (the process and content of formulation) and the end (the process and content of application) of stereotyping..." (p45). Fishman agreed with Asch that group processes such as stereotyping were very much the action of individuals, but that those actions are in themselves a function of group forces.

This view of individuals acting in terms of their group membership was emerging in the face of two alternative views that had previously held sway in social psychology, that of the "group mind" (McDougall, 1921) and that of pure "individualism" (F.H. Allport, 1933). It is also a view that is reflected in modern research from a social identity theory approach. Researchers such as Tajfel (1979; 1981), Turner (1987; 1999), Turner and Oakes (1989, 1997), Oakes and Turner (1990), Oakes et al. (1994), Haslam and Turner (1992; 1995), and Spears (2002), have focused on stereotypes as arising from group relations as a reflection of social reality. The work of Asch was particularly influential in this approach.

Asch, in his book *Social Psychology* (1952), puts forward a critique of both the “group mind” and “pure individualism” doctrines and goes on to propose that in order to properly understand the relationship between the individual and the group “We must see group phenomena as both *the product and condition* of actions of individuals.” (p251) and that “We need a way of understanding group processes that retains the prime reality of individual *and* group...” (p250). Asch states that both the group mind doctrine and the individualist doctrine, fail on the same basis: that of denying “...the presence of a *socially structured field within the individual.*” (p253) Because groups can be represented in the minds of individuals, stereotypes are therefore the product of these representations. This representation is neither irrational nor biased, but is the product of the fact that groups are real in a psychological sense. Asch saw stereotyping and group behaviour as a normal part of the social reality of humans. In this way, Asch is distinct from Fishman who saw stereotypes as a product of faulty processes and therefore not representative of reality all the time. Asch also most definitely placed stereotyping on the rational side of human behaviour, in fact he believed that group processes are so entwined with individual ones that “...we should understand them to understand individuals.” (p238)

Vinacke also placed stereotyping at the rational end of behaviour. In fact, Vinacke regarded stereotypes as “concept-systems, with positive as well as negative functions, having the same general kinds of properties as other concepts, and serving to organize experience as do other concepts” (1957, p229). Many of Vinacke’s ideas about stereotypes are, again, echoed in much later theories (eg: social identity theory, self-categorisation theory), in particular, that stereotypes

(as concepts) are “cognitive organizing systems which serve to bring pertinent features of past experience to bear upon a present stimulus-object” (p233), and also, that stereotypes (as concepts) can be organised in terms of both vertical and horizontal classifications based on inclusivity and cognate properties. He also states that the specific level of classification used at any time depends on context (situation). Importantly, Vinacke is at pains to point out the lack of logic in equating stereotyping with prejudice, irrationality, or bias. He also discusses at some length, the fact that not only do people stereotype others but also themselves. These ideas can be seen to be quite radical for their day and, as stated above, to be reflected in much more modern research.

Unfortunately, these ideas by Fishman, Asch and Vinacke did not influence much of the empirical research of the time and work on stereotyping in the late 1950’s through to the end of the 1960’s tended to concentrate on content of ethnic and racial stereotypes. As stated above, this work on content was produced in the search for an explanation of prejudice but was mostly descriptive in nature. Along with Sherif, however, G. W. Allport attempted to put forward a more theoretical examination of “The Nature of Prejudice” (1954), and used the cognitive process of categorization as part of the basis for this examination.

Allport discusses the importance of the categorization process in perception. He states that humans must think with the aid of categories and that “...categorical thinking is a natural and inevitable tendency of the human mind...” (1954, p170). Categories, however can be irrational or rational and that to be the latter, “...a category must be built around the *essential* attributes of all objects that can be

correctly included within the category.” (p171, emphasis in original). Allport goes on to distinguish between differentiated categories and monopolistic categories. Monopolistic categories, he states, are easier to form and hold. They are powerful, rigid and inflexible and confirmed by small pieces of evidence. On the other hand, differentiated categories are held tentatively and make allowance for variation. Most importantly, in regard to Allport’s view of stereotyping he states: “A differentiated category is the opposite of a stereotype.” (p173).

So, although Allport states that normal cognitive processes such as categorization are the basis for group differentiation, prejudice and stereotyping, he clearly believes that there are two forms of these processes: rational, directed, differentiated categorization that is the hallmark of tolerant people; and irrational, autistic, monopolistic categorization that is displayed by prejudiced people. In this way, he delineates stereotyping and stereotypes as irrational, as “an exaggerated belief associated with a category.” (p191). Stereotypes act as both justificatory devices and as screening devices to maintain simplicity. Although stereotypes “need not be altogether false” (p192) they can be distinguished from a valid generalization if there is data regarding the content of “true group differences”. Allport then, saw stereotyping as “bad”, not because he believed that all stereotypes were negative, or because he believed that stereotyping arose from intrapsychic motivations or abnormal personality types, but like Fishman, because he believed that the process of stereotyping indicated inferior thinking at the expense of higher “reasoning ability”. This concept of stereotyping, as normal but inferior thinking was to underpin the social cognitive approach to stereotyping that dominated the latter part of the 20th century. Categorization as a

normal cognitive process became the cornerstone of stereotyping research. In particular, categorization as an information reduction mechanism was seen to be, absolutely, the precursor to stereotyping and intergroup behaviour. This work was in response to Tajfel's seminal article of 1969 "Cognitive Aspects of Prejudice".

2.3. Henri Tajfel and the Cognitive Aspects of Prejudice

Tajfel presented three cognitive processes that he believed were pivotal to both prejudice and stereotyping: categorization, assimilation and the search for coherence (Tajfel, 1969). It was the process of categorization that he saw as central to the origin of stereotypes. Assimilation of social values and norms was the process by which the content of intergroup attitudes was formed, and the search for coherence explains how stereotypes or intergroup attitudes are used in specific situations and how they adapt to change, but it is the process of dividing our perceptual world (both social and object) into classifications according to some set of criteria that allows us to form the concepts of social groups and the attributes needed to describe those groups. Tajfel believed that we categorize our social world in exactly the same manner (cognitively) as we do our object world and that stereotypes are the outcome of this categorization process, rather than irrational intrapsychic drives or motivations. Tajfel states:

"This does not mean, of course, that emotional and motivational factors are unimportant. But it is just as true that the greatest adaptive advantage of man is his capacity to modify his behavior as a function of the way in which he perceives and understands a situation. It is difficult to see why it should be assumed that he loses this capacity as soon as he confronts human groups other than his own, and

that it is in these situations alone that most of his concepts, attitudes, beliefs, and modes of thinking are no more than powerless and pale projections of instinctive or unconscious drives.” (1969, p81)

Oakes and Turner (1990) state that categorization is now thought of as the critical cognitive process in stereotyping for two reasons: firstly, because it is a basic cognitive function that pervades all perceptual experience, and secondly, because of particular perceptual effects of categorization that seem to explain stereotyping particularly well.

These effects are outlined in Tajfel (1959) and Tajfel and Wilkes (1963). In the '59 paper Tajfel outlines findings pertaining to judgment of stimuli and the interaction effects of variables such as physical magnitude, value to the subject and classification. In this theoretical paper he presents predictions about shifts in judgments due to various combinations of these variables. In other words, Tajfel is stating that so called “objective” judgments (eg: judgments of size of an object) can be influenced by such variables as the value of that object to the perceiver, or the classification of that object according to a set of attributes.

In Tajfel and Wilkes (1963) the authors report upon studies using the length of lines as the stimulus target. Participants are asked to judge the lengths of eight lines presented to them. The lines differ in length by a constant ratio and there are three conditions of presentation. In one condition the four shorter lines are labeled “A” and the four longer lines, “B”. In another condition, no labeling is present and in the third condition the labels are randomly applied to the lines with

no relationship to their length. The results showed that when the lines were labeled “A” and “B” and this labeling was related to the length of the lines, participants accentuated the difference between the longest of the shorter lines and the shortest of the longer lines, even though this difference was exactly the same ratio as all differences between lines. Further, there was some evidence (as indicated by a nonsignificant trend) that participants minimized the differences between lines within each “group”. In other words, participants were likely to underestimate the differences between lines with the same label and overestimate the difference between lines of different labels.

Tajfel, Sheikh and Gardner (1964), investigated this further and showed the same effects in two studies using social stimuli. Participants made judgments about actual persons (Indians and Canadians) after seeing those persons interviewed in a fairly freeform manner. The authors found “...evidence...indicating a minimization of the differences between members of an ethnic group on traits which subjectively characterize that group.” (p199). In this case, social attributes (traits) have taken the place of physical attributes (length of lines), while categorization into social groups replaces the labels of A and B. Tajfel (1969) states that these effects are “two aspects of the same phenomenon”, which he describes as such:

“When a classification is correlated with a continuous dimension, there will be a tendency to exaggerate the differences on *that* dimension between items which fall into distinct classes, and to minimize these differences within each of the classes.” (p83)

Tajfel goes on to cite a number of further studies that have demonstrated the process of categorization and its influence on social judgments, such as Secord, Bevan and Katz (1956), and Razran (1950) as well as his own work (Tajfel, 1959; Tajfel & Wilkes, 1963) as cited above. However, Tajfel also states that there is an important difference between line judgments and stereotyping, which is that biases associated with the judgment of lines can quite easily be corrected by offering a reward for accuracy. Tajfel states that in the case of stereotypes this would not hold true. There are two reasons why this is so. Firstly, social judgments are much more ambiguous than judgment of lines and therefore contradictory information can be easily ignored, and secondly, the consequences of a mistake in judgment are quite different. Tajfel states that rather than mistakes in human judgment eliciting "dire consequences" as would be the case in misjudging the physical environment, these mistakes are actually self-rewarding, particularly for a prejudiced person in the social context of strong support for such judgments. In other words, where a bias or distortion of perception occurs in the physical world, this could lead to injury or perhaps even death. However, in the social world, especially in the face of social support, such distortions are likely to be rewarded and strengthened.

It can be seen here that Tajfel saw the accentuation effects of categorization as a bias, or distortion of perception. Perceivers make mistakes when they categorize and judge according to particular attributes by overgeneralizing. When this overgeneralization is associated with a prejudiced attitude or hostile stereotypes, especially in the face of social support, we have the cognitive foundation of

prejudice. Unfortunately, this link between categorization and prejudice became the focus of later research to the point where stereotyping, in fact, social categorization per se, was seen not only as a perceptual bias, but also one that inevitably led to negative consequences – seeing the world in terms of social categories was not only perceptually biased, it was mistaken, wrong and bad. Tajfel stated that the purpose of his '69 paper was to outline the aetiology of prejudice “...mainly with regard to its *unfavorable* aspects.” (p81). This statement implies that there are other aspects not so unfavorable, however most later research concentrated only on the former.

If prejudice and stereotyping are bad and the cause of these social phenomena is categorization, then the next obvious step in the chain of research is to examine why humans categorize in the first place. In the area of social cognition research the answer to this question was exclusively to save cognitive resources. In research leading back to Lippmann and Allport, and propelled in its focus by the ground breaking work of Tajfel, the next two decades saw an approach to stereotyping emerge that almost completely ignored the concept of the individual as a group member and focused only on the individual's cognitive process of categorization, in particular, categorization as a simplifying, information reduction mechanism. We will now examine this work and its implications for the topic of this thesis.

2.4. The era of the cognitive miser: categorization as an information reduction mechanism and the answer to the question of when we stereotype

In the 1970's and 1980's the presiding metatheory of social psychology was the concept of humans as cognitive misers (Taylor, 1981; Oakes & Turner, 1990). Indeed, the study of psychology as a whole was in the middle of a shift in paradigm. Cognitive psychology was moving away from the computer analogy of human behaviour and taking on the perspective of "bounded rationality" (Ashmore & Del Boca, 1981). The various subfields of psychology were, in turn, looking to the study of human cognition to provide an alternative to the prevailing paradigms with which they were losing faith.

Within social psychology, the study of stereotyping and prejudice became enmeshed in this new focus of research. The categorization analysis of stereotyping fitted nicely into the view of humans as being rational but limited in their cognitive abilities. Categorization was seen as the answer to this limited processing power. By reducing the amount of information the perceiver had to contend with, categorization made it possible for humans to interact with their environment, both physical and social. Unfortunately, as a byproduct of this information reduction process, certain "mistakes" were inevitable. As Ashmore and Del Boca (1981) state in their description of the cognitive approach to stereotyping: "...cognitive limitations make humans susceptible to systematic biases in processing information about people and events, and these biases contribute significantly to the formation and maintenance of stereotypes regarding social groups." (p29)

As noted earlier, ideas about the role of categorization in stereotyping and the complexity of human reality can be traced back as far as Lippmann (1922) and Allport (1954). Oakes and Turner (1990) state that while the idea of limited cognitive capacity is not new "...it is newly elevated to a central explanatory role in social psychology." (p118) – a central explanatory role that sees limited capacity as the psychological cause of stereotyping.

The literature dealing with stereotyping from this era is immense. Research of the time examined the processes involved in categorization itself (accentuation of similarity and difference, categorization and ingroup bias); how social stereotypes are formed (illusory correlation, social structures theory, stereotypes as justifications); issues of category representation (prototypes, exemplars, homogeneity); how information about individuals and groups is attended to, encoded and retrieved; stereotype change; and the issue of stereotype activation and use (when do we stereotype). As this work has been well reviewed elsewhere (Hamilton & Trolier, 1986; Oakes et al., 1994) and a thorough review is beyond the scope of this thesis (in fact, would be a thesis of its own), we will concentrate here on the area of work that is most important in regard to the study of mood and stereotyping. The answer to the question "when do we stereotype?" is pivotal to research investigating the effects of mood on stereotyping and we will now examine theoretical and empirical work carried out in search of this answer.

Drawing from work on spontaneous selective attention in social perception, Taylor's distinctiveness or novelty principle states that any relatively novel stimulus will automatically attract attention (S. Taylor & Fiske, 1978). In the

case of stereotyping, category membership (or a cue to that membership) may constitute a novel stimulus thereby making group membership salient. Category membership is more likely to be novel where it is in the minority. Taylor, Fiske, Etcoff, and Ruderman (1978) reported a study in which the sex composition of the stimulus group was manipulated so that it comprised either a single sex group (six men or six women) or one of six other proportions ranging from one man among five women to one woman among five men. Participants were asked to report on each group member in regard to whether he or she had seemed to play any special role in the group. It was found (via a non-significant trend) that responses were more likely to reflect sex-typed roles when the stimulus person was a member of the minority sex. That is, if the target person was the single female in a group of males, or one of only two females in a group of four males, then they were more likely to be described as having played a special role and that role was more likely to be couched in stereotypically female terms. The same applied to male targets in terms of the male stereotype. These results show some support for the idea that stereotyping can be activated via the novelty principle when group membership is rendered novel by its minority status.

Oakes and Turner (1986) have questioned this effect, suggesting that task requirements are responsible for the results. When participants are asked about the special role that a member of the group may have played, this in itself could account for them focusing on gender roles as gender would be the distinguishing feature of a target in the sex minority conditions. Therefore, rather than a perceptual bias towards novelty, participants may simply have been responding to demand characteristics of the item. Studies by Oakes and Turner (1986), Nesdale,

Dharmalingam and Kerr (1987) and Abrams, Thomas and Hogg (1990) have investigated these effects and found no evidence to support an automatic distinctiveness bias. Taylor's work does, however, provide support for the idea that we stereotype when group membership becomes salient. The debate rests in the definition of salience and whether it is related to novelty or to some other cognitive process. Chapter 5 examines the concept of salience in more detail, in particular from a self-categorization viewpoint that incorporates ideas drawn from the work of Bruner (1957).

Also influenced by Bruner, the work of Fiske, Neuberg and colleagues (Fiske, 1982; Fiske, Lin & Neuberg, 1999; Fiske & Neuberg, 1989, 1990; Fiske, Neuberg, Beattie, & Milberg, 1987, Fiske & Pavelchak, 1986) took categorization of novel stimuli as its starting point. In an attempt to combine two approaches to impression formation, Fiske and Neuberg's continuum model proposes the following sequence of events. Perceivers initially categorize the target "immediately upon encountering information sufficient for cuing a meaningful social category." (1990, p4). This information may be a physical feature, a configuration of category consistent attributes, or some form of information that becomes accessible. The category involved may be one cued in memory or one that is offered by the stimulus or a third party. Certain categories such as age, gender and ethnicity are what Fiske and Neuberg call "privileged" in that they can easily be applied to most targets almost immediately. This initial categorization of a target is considered to be extremely rapid and perceptual, occurring before attention is allocated. In fact, the next step in the process is considered to be deciding whether or not the target holds any degree of personal relevance or

interest. Only if the answer is yes, is attention allocated to the target's specific attributes. If the answer is no, the process finishes at the initial categorization and behaviour, attitude and affect will reflect responses to the chosen category.

If personal relevance or interest is involved then the perceiver will further attend to the attributes of the target. This third stage of the process is important, Fiske and Neuberg state, because "...attention to attributes mediates the extent to which people use relatively stereotypic or relatively more individuating processes." (1990, p6). Upon attending to additional information, the perceiver will attempt to find fit between the stimulus and the initial category – how typical the stimulus is of the category at hand. Again, at this point, if additional information fits with the initial categorization then behaviour, affect and cognitions towards the target will be based on that category.

If additional information does not fit the initial category, however, a process of recategorization will occur whereby the perceiver will attempt to find a new category that will better account for the information. Fiske and Neuberg state that this may involve finding a subcategory, an exemplar, accessing a self-schema or an entirely new category. The authors state that the content of recategorization is not particularly important, as the processes result in similar effects on impression formation. At this point in the process, if the new category accounts well for the information at hand, then the perceiver will stop and behaviour, cognitions and affect will be in response to knowledge about the new category and not the initial categorization. If, however, a new category cannot be found, then piecemeal integration of attributes will occur. Fiske and Neuberg stress though, that this

type of processing can only occur if the perceiver has "...sufficient time, resources, and motivation..." (p8). Piecemeal integration means that the perceiver must use a process of addition or averaging of attributes to arrive at a final assessment. Fiske and Neuberg state that this is the most individuating stage of the process and that the perceiver's behaviours, cognitions, and affect towards the target will now be "...uncontaminated by category based generalizations." (p8).

It can be seen here that the process of individuation is clearly considered more accurate and more desirable than category based impressions. The authors state this explicitly later in the 1990 chapter and give two reasons. Firstly, individuation is preferable because perceivers often categorize outgroup members negatively, and secondly, categorization generalizes beyond the individual case and thereby results in error. The aim, then of all impression formation should be individuation, so why do we so often insist on categorization and why does all impression formation start with the categorization process? Fiske and Neuberg state that categorization is an adaptive and pervasive process and that social categorization is important for several reasons. Some of these reasons relate to the way in which people gain meaning from new stimuli by relating them to past experience. More importantly for this thesis is the authors' focus on the use of categorization as an information reduction mechanism. We categorize because we must simplify our environment. The authors state:

"Hence, the perceiver has been characterized as a 'cognitive miser'...For reasons of cognitive economy, we categorize others as members of particular groups – groups about which we often have a great deal of generalized, or stereotypic,

knowledge. Given our limited cognitive resources, it is both simpler (requires less effort) and more efficient (requires less time) for a perceiver to use stereotypic information to make inferences about individuals belonging to a group than it is to analyze each person on an individual basis without benefit of this integrated, prior information.....Research on stereotyping thus assumes that social categorization is a necessary, if unfortunate, byproduct of our cognitive makeup.” (1990, p14)

The answer to the question “when do we stereotype?” according to Fiske and Neuberg’s model, then becomes this: We will stereotype when we do not have the cognitive resources or the motivation to engage in the effortful process of individuation. This answer is extremely important in the area of mood effects on stereotyping as will be outlined in the next chapter. Categorization of social targets is the initial, the “natural” first point of perception and we will not go beyond this unless we have either the motivation (personal relevance) or the time and cognitive resources to make a more “accurate” impression by piecing together individual attributes bit by bit. As will be outlined in Chapter 3, positive mood may interfere with either motivation or cognitive resources and therefore lead to the use of categories rather than piecemeal processing. Further, responding to a target via the behaviours, cognitions and affect elicited by knowledge of social group membership, is the less preferred option in impression formation. Knowledge of social group membership (stereotyping) is necessarily biased and lacking in accuracy according to Fiske and Neuberg’s model.

About the same time as Fiske and Neuberg were developing their continuum model of impression formation, Brewer's (1988) dual process model was also prominent in the area of social cognition and impression formation. The models are similar in some ways but diverge in terms of the impression formation path after initial categorization. Brewer's model starts, like Fiske and Neuberg's, with an initial categorization that is automatic upon presentation of the stimulus person. This automatic processing occurs without conscious intent and is common to all person perception (Brewer, 1988). After this initial stage, a decision is made about whether or not the stimulus person is of relevance. If not, then all processing ceases and the initial categorization stands. If yes, then the perceiver moves on to what Brewer calls controlled processing.

It is at this stage that the two separate processes of Brewer's model come into play. If the stimulus evokes *self-involvement* within the perceiver, then further processing will lead to personalization (what Fiske and Neuberg refer to as individuation), that is person-based, or piecemeal processing. Brewer calls this type of processing "bottom-up" processing. If no self-involvement is elicited then processing will occur via a top-down process which leads to category based impressions. Brewer states that Fiske and Neuberg's model concentrates on trait information having good fit with the available category. It is this level of fit that instigates more or less processing. The dual-process model, however, focuses more on perceiver motivations and objectives as the prime determinant of processing mode (Brewer, 1988).

In Brewer's model then, stereotyping will occur when the perceiver has minimal self-involvement and/or variables such as category accessibility, contextual cues and perceiver goals interact with stimulus fit to result in the decision that enough processing has been engaged in and an appropriate impression has been formed through a category allocation. So, for Brewer, stereotyping is not necessarily due to lack of cognitive resources per se, but is directly related to self-involvement. This analysis still implicitly associates categorization with lack of effort, albeit lack of motivation for effortful processing due to lack of self-involvement rather than cognitive resources. Top-down processing is still seen as less effortful than bottom-up. Further, stereotyping is the outcome of this less effortful style of processing. The answer to the question "when do we stereotype?" becomes "when we don't really care and we see no reason to be bothered!". As we shall see in Chapter 4, this is also a strong theme in the mood and stereotyping literature.

Although both Fiske and Neuberg's, and Brewer's models propose that perceivers stereotype because cognitive resources and/ or motivation are limited, neither model directly predicts, or tests, the idea that overload of resources would therefore result in increased stereotyping. Fiske, in particular, went on to investigate the relationships between interdependence, personal control motives, power, and stereotyping (Fiske, 1993; Fiske & Depret, 1996; Fiske, Lin & Neuberg, 1999; Fiske, Morling, & Stevens, 1996), seeing the use of stereotypes as default, with other processes then attenuating category based impressions and leading to more accurate individuated ones. The most important research to come out of the cognitive miser period in terms of the connection to the mood and

stereotyping literature however, is work directly testing the idea that the need to conserve processing capacity is the major causal factor in stereotyping.

Early in the cognitive miser period Taylor et al. (1978), made the “cognitive load equals increased stereotyping” prediction, but found no evidence for it. In spite of this, many studies have gone on to test this idea directly (Gilbert & Hixon, 1991; Rothbart, Fulero, Jensen, Howard & Birrell, 1978; Stangor & Duan, 1991). In particular, the work of Bodenhausen and colleagues (Bodenhausen & Lichtenstein, 1987; Bodenhausen & Wyer, 1985) and Macrae and colleagues (Macrae, Hewstone & Griffiths, 1993; Macrae, Milne & Bodenhausen, 1994; Pendry & Macrae, 1994) is important here. We will now review this work – often referred to as the “cognitive load” literature.

Rothbart et al. (1978, Exp 1) conducted one of the first studies to examine the effects of cognitive load on person perception and group perception in particular. The aim of the experiment was to examine how people amalgamate impressions of discrete individuals to form a perception of a group. In particular the authors focused on the cognitive mechanisms involved. Load was manipulated by altering the number of person-trait pairings presented to participants such that low load constituted 16 pairings and high load 64 pairings. The authors found that low load led participants to organize their perceptions of a group around individual member’s characteristics whereas high load resulted in more undifferentiated group impressions. Spears and Haslam (1997) state that this study was later taken as evidence that it is cognitive load that mediates people’s ability to distinguish

between members of the same category, in other words to “stereotype” group members.

Gilbert and Hixon (1991) found mixed results for stereotype use under cognitive load using an Asian target. The authors manipulated cognitive load via increased memory burden (memorizing an 8-digit number) during task completion, or by having participants complete a visual search task while being exposed to the stereotyping stimulus. Results showed that when the stereotype had been primed before task completion then cognitive busyness led to increased use of the stereotype in the task. However, cognitive busyness could prevent a stereotype from being activated in the first place. The authors conclude that cognitive load may decrease the likelihood of a particular stereotype being activated but will increase the likelihood of an activated stereotype being applied.

Stangor and Duan (1991) manipulated cognitive load through multiple task demands and focused on how this affected processing of stereotypically consistent and inconsistent information. The authors found that when participants had to form impressions of more rather than fewer groups, the recall advantage for inconsistent stereotypic information decreased. Participants with more task demands, then, recalled less stereotype inconsistent and more stereotype consistent information when forming their impressions. A second study had participants form impressions of two groups only, however one half of the participants were distracted by having to listen to a news broadcast concurrently to forming their impressions. Distracted participants recalled a greater amount of consistent information and non-distracted participants recalled more inconsistent

information. Further, the authors state that although the impressions themselves were not affected by load in the same way as recall, this finding is not unusual and should not be taken as evidence that increased cognitive load will reduce stereotyping, rather that the lack of relationship is indicative of a laboratory setting and particular instructions to form impressions online. When forming impressions in the real world, the authors state that differential recall would influence impressions in the direction of "...general expectations of the group." (p376).

Macrae, Hewstone and Griffiths (1993) however, did find a significant correlation between recall and impression. The authors combined aspects of both Gilbert and Hixon (1991) and Stangor and Duan (1991) using stereotypes of real-life groups (hairdressers and doctors). The study examined the "heuristic utility of stereotype application in difficult or demanding information-processing contexts." (p77). Participants in the high load condition were given 25 seconds to memorize an 8-digit number immediately before being presented with the stereotyping stimulus, and were told that they would have to recall the number at the end of the experiment. Results showed that, as predicted, participants' recall for consistent information was better than recall for inconsistent in the high load condition and the reverse applied in the low load condition. Also, as stated above, a correlation was found between better recall of consistent information and impressions (higher ratings on stereotypic traits). The authors conclude that these effects support the idea that "When processing demands are high, stereotypes operate as simplifying themes, facilitating the representation of consistent information in memory..." (p84). Macrae, Milne and Bodenhausen (1994) also presented work to support

the idea of stereotypes as energy saving devices. By approaching the concept from the “opposite” viewpoint, the authors showed that priming a stereotype could actually free cognitive resources in order to attend to a concurrent task thus supporting the idea that cognitive load may provide perceivers with the impetus for stereotyping. Finally, Pendry and Macrae (1994) found that participants made more stereotypic ratings under conditions of outcome-dependence when cognitive busyness was manipulated via a memory task (Study 1) or a probe reaction task (Study 2).

The work outlined above contributed a great deal to the investigation of stereotyping in the cognitive miser period and the examination of cognitive load in particular. As stated above, the idea that stereotypes work as “simplifying themes” that aid in information processing by facilitating memory was a significant guiding principle in this area. One final program of work in this area will now be examined, that of Bodenhausen and colleagues. These particular researchers have been left until last because their work overlaps with research to be presented in the following chapter. Starting with work examining stereotypes as a type of cognitive heuristic, Bodenhausen and colleagues went on to apply this concept to the study of mood effects on stereotyping, seeing particular mood states as being capable of increasing cognitive busyness. In this chapter, however we will only deal with the work on stereotyping per se, leaving the work on mood effects until Chapter 3.

Bodenhausen and Wyer (1985), reported two experiments testing the hypothesis that stereotypes function as judgmental heuristics. Participants were asked to

make decisions about the likely recurrence of, and punishment for, a job-related infraction (Exp. 1) or criminal act (Exp. 2) after reading a casefile about the transgressor. In some of the casefiles, the transgressor was a member of a specific social group (conveyed through his name) that was stereotypically associated with the transgression. For example, in Experiment 2, “Ashley Chamberlaine” was accused of white-collar fraud and “Carlos Ramirez” of assault and battery in a bar. Results supported the authors’ hypothesis in that participants “...used a stereotype of the target to infer the reasons for his transgression, and then based their punishment decisions on the implications of these inferences...” (p267). Bodenhausen and Wyer also state that heuristics (stereotypes) are more likely to be used when information processing demands are complex.

This hypothesis was tested directly in an experiment reported by Bodenhausen and Lichtenstein (1987). In this study, the basic paradigm was similar to the studies outlined above, however cognitive load was manipulated via task complexity. Results showed that participants used stereotypes more when faced with judgments of guilt (assumed to be a more complex decision) than judgments of aggressiveness, when the target’s ethnicity was stereotypically associated with the transgression. Cognitive load then, increases reliance on judgmental heuristics or stereotypes. Bodenhausen has continued this line of work in the area of mood and stereotyping with similar results when using positive mood as a load manipulation. As stated above, this work will be examined in detail in Chapter 4.

The cognitive miser, cognitive load literature has not gone uncriticized (Oakes & Haslam, 2000; Oakes & Turner, 1990; Spears & Haslam, 1997). Spears and

Haslam (1997) put forward a number of theoretical arguments that critique the assumptions of the cognitive miser approach as well as a more specific empirical critique. They raise the issue of interpretation of data and state that many of the cognitive load studies could be reinterpreted in line with a more meaning based approach to stereotyping. Further, they state that evidence of processing efficiency or enhanced recall of stereotypic information does not demonstrate that stereotypes are heuristic energy saving devices any more than it rules out an alternative explanation in terms of stereotypes as meaning based interpretations of the social world. The problem of interpreting stereotypes as biases and individuation as accurate perception is also raised by Spears and Haslam, who state that this is mainly caused by the type of situation in which judgments about individuals are made in the cognitive load literature (being a member of a jury). Finally, the authors state that the way in which categories are manipulated in these studies may “load the dice in favour of eliciting that category whereas a more complete and natural presentation of the target would provide the perceiver with the opportunity to perceive and categorize the person in a range of other ways...” (Spears & Haslam, 1997, p188).

The authors then go on to present a number of studies conducted to re-examine the typical load manipulations, such as the “who said what” paradigm of Taylor et al. (1978), the illusory correlation paradigm of Hamilton and Gifford (1976) and the digit rehearsal paradigm of Macrae et al. (1993). Spears and Haslam conclude that this research provides “no clear evidence to support the miser-based load hypothesis” (p204) and that none of the studies found that the addition of load led to increased stereotyping in a straightforward manner. Importantly, the research

does lend support to the idea that “stereotyping arises from a rational process of detecting and representing social meaning.” (p204). These ideas are elaborated in Chapter 5 of this thesis where we present an alternative approach to stereotyping in the form of self-categorization theory.

2.5. Overview

The aim of this chapter was to review stereotyping research from its first conception in the social sciences by Lippmann (1922) to the cognitive miser approach of the latter part of the 20th Century. The purpose of this review was to explore the historical underpinnings of methodologies and theories that are still very much in use today, to illustrate the extent to which stereotyping research has focused on the link between stereotyping and prejudice, and more importantly, to establish the context in which literature on mood and stereotyping evolved. The meta-theory of the cognitive miser had an immeasurable impact on research in psychology more generally and stereotyping in particular. As we will see in the next chapter, that impact was also felt in the area of mood research.

It can be seen by the review of work by Lippmann, Allport, Asch, Sherif, and Tajfel, among others, that stereotyping research tended to be in one of three areas of focus: that looking at the content of (in particular) racial and ethnic stereotypes; that looking at the “kernel of truth” debate; and that taking a more theoretical approach to the understanding of processes of prejudice and group hostility. Stereotypes were mostly considered to be inflexible, “pictures in our heads” that were used to help us cope with the extraordinary amount of information that

humans have to deal with in perceiving their world. Rigid and undesirable they were, nevertheless, an unfortunate but necessary byproduct of the way in which we perceive our social world. A small number of researchers such as Adorno et al., and Dollard et al., saw stereotypes as a product of an unhealthy personality or hostile drive, in other words, as an individual difference variable, however most researchers agreed that stereotypes and stereotyping were very much within the sphere of social rather than clinical psychology.

We have seen that it was Tajfel's seminal paper of 1969 that placed stereotypes squarely into the realm of rationality and normal cognition, albeit still linked quite firmly with the concept of prejudice and hostility between groups. We have also seen how research following Tajfel concentrated firmly on the process of categorization, its form, effects and purpose, to explain stereotyping and person perception.

The cognitive revolution of the 1970's set the scene for the emergence of the perceiver as the cognitive miser. Information processing overload was seen to be the norm for both object and person perception. Perceivers needed a way to cope with the information that they were constantly bombarded with. Categorization was the process that took care of simplifying and organizing information. Within this simplification process however, loss of information was bound to occur, biases in perception were bound to happen. Stereotyping was seen to be a product of these biases and simplification processes. The conceptualization of stereotypes being bad, being linked with negative evaluations of groups, fitted well with the idea that stereotypes were biases – naturally occurring but unfortunate byproducts

of the categorization process. Stereotyping occurred because perceivers could not or would not think systematically about a target and take into account all their idiosyncratic, individualistic, personal qualities. Stereotyping was the automatic placing of a person into a group and seeing them in terms of their group membership only. Stereotyping was a shortcut, an heuristic, a cognitive tool.

This then, was the state of stereotyping research when a resurgence of interest in affect and cognition came into being in the late 1970's and 1980's. For many years, the interplay between affect and cognition – in particular, social cognition – had been ignored. At the height of the cognitive revolution, however, researchers again began to investigate the area of affect and the ways in which our moods may influence judgments, problem solving, creativity, person perception, persuasion and group processes. Over the next two decades this research grew into a large and complex literature comprising various models of affect and behaviour, affect and cognition, and affect and person perception and stereotyping. In this tradition also, the meta-theory of the perceiver as cognitive miser held sway.

In the next two chapters we will examine this literature and see how the concept of the cognitive miser molded research and theory in the area. In Chapter 3 we will examine models of affect and social cognition generally. These models and the early empirical research that created them are an important starting point in the area of affect and stereotyping as they are the cornerstone of later work dealing directly with mood effects on person perception and social categorization.

In Chapter 4 we will move on to work directly concerned with the interaction between affect and the stereotyping process.

CHAPTER 3

Early mood research and models of mood and social processing

3.1 Introduction

The aim of this chapter is to review literature, both theory and research, focusing on the area of mood and in particular on the effects of mood on cognition and social judgment. The purpose of this chapter is to trace the development of theories of mood effects and outline the empirical work that supported them, and to examine this work as an outcome of the social cognitive viewpoint within which it was based. As in the previous chapter, we will show how the meta-theoretical framework of humans as cognitive misers influenced the approach to this area of work. In particular, it will be shown that mood is conceptualised as a mediating variable in the use of information processing strategies.

Before going on to the review, however, a note needs to be made about the use of the terms “affect” and “mood”. Authors in this area of research use both terms, usually interchangeably. Isen (1984) states that affective responses are those that include all types of what we would normally refer to as emotions or feelings. These include strong *emotions* such as euphoria, anger and intense sadness but also the more “day to day” *feelings* of mild happiness, contentment, sadness,

annoyance, irritation etc. Emotions, Isen states, are more intense and more goal directed but also more intrusive. Feelings, on the other hand are less focused and more pervasive in effects. Forgas (2000) states much the same ideas when he says that emotions are short-lived, intense, with a highly accessible and salient cause, and clear, prototypical cognitive content. Moods are relatively low-intensity, diffuse, and enduring with no salient antecedent cause and little cognitive content.

Positive affect then, can be either an intense positive emotion or a low-intensity positive mood. Similarly, negative affect can be intense anger or mild irritation. Both Isen and Forgas go on to state though, that the type of affective responses dealt with in affect research are necessarily of the less intense “day to day” feelings which are also referred to as “moods”. This is probably because moods may be less consciously controlled and have more insidious effects that are more enduring (Forgas, 2000). The distinction between moods and emotions may however, be a fuzzy one with lingering moods resulting from the experience of a strong emotion (Forgas, 2000). Another reason may be the difficulty in manipulating strong emotions in study participants. For the purposes of this thesis, and because it is moods that are the focus of the research we are interested in, we will use the terms “affect” and “mood” interchangeably such that affect implies low-intensity moods rather than emotions. Where a particular researcher uses the term “affect”, then we will also use this term in describing their work. In later chapters, where our own ideas and empirical work are concerned, we will use the term “mood” in line with the title of this thesis.

We will begin the review of research by presenting work by Bower (1981; 1991), and Isen (1984; 1987). The examination of affect and cognition as a focus of research wavered somewhat in the 1960's and 1970's, however in the late 1970's there was a resurgence of interest in this area led by the above authors along with the work of Schwarz and Clore (1983; 1988). This early work laid the foundations for a rediscovery of affect and its effects on human cognition and social behaviour. Following this, we will examine the work of Sinclair and Mark (1992) and Forgas (1995) whose models were developed in an attempt to integrate data and theory from the earlier research and to account for certain anomalies in the data. Forgas also attempted to form a theory of affect and cognition that was directly related to social judgment and person perception. It is important to explore these early models as they comprise the cornerstone of later theorising in the area, and in particular are the direct antecedents to models of mood and stereotyping that emerged in the 1990's, which will be presented in Chapter 4.

3.2 Models of affect and cognition: the resurgence of mood research in the 1980's.

One of the first theories of affect and cognition, and one that is the antecedent to a variety of later models dealing with affect and social behaviour, is that of Bower. Bower's associative network theory of memory and emotion published in 1981 (followed ten years later by an amended model) is based on the work of cognitive network theorists such as Anderson (1976). Bower presents his theory using the analogy of an electrical network "...in which terminals correspond to concepts or

event nodes (units), connecting wires correspond to associative relations with more or less resistance, and electrical energy corresponds to activation that is injected into one or more nodes (units) in the network.” (1981, p134). Bower proposes that each emotion has a specific node in memory. Collected around each node are associated autonomic reactions, standard role and expressive behaviours, descriptions of standard evocative situations and verbal labels assigned to the emotion. Bower states that some of the associations are learned, some are innate and that “Each emotion unit is also linked with propositions describing events from one’s life during which that emotion was aroused.” (p135). Emotions become associated with evoking events by contiguity and causal belongingness.

When activated above a certain threshold, emotion nodes transmit excitement to other nodes and may inhibit nodes of opposing emotion. If two nodes are activated and do not inhibit each other then a blend of emotions may arise (e.g. sadness and surprise may blend to become disappointment). Emotion nodes also spread excitation to memory structures connected with them.

Bower uses this associative network model to explain two basic phenomena: mood-state-dependent recall and mood-congruity effects. Mood-state-dependent recall refers to the heightened ability of participants to retrieve learned stimuli from memory when they are placed in the same mood as they were in when the stimuli were originally learned. Bower suggests that the combination of the context cue with the emotion cue aids retrieval by causing the target events to become more accessible. He adds that the theory will be similar for everyday events from the recent or more distant past. Mood congruity effects refer to the

likelihood of the perceiver remembering material that is congruent with the mood they are in at the time of recall. It will be seen later that both mood-state-dependent recall and mood congruity effects have been important to the examination of mood and stereotyping. For example, if a perceiver is in a negative mood when experiencing an intergroup interaction then that mood may flavour later interactions with members of that group, or lead to negative evaluations of the group in general.

Bower suggests three sets of cognitive processes that are influenced by emotion: associative processes (free associations, semantic elaboration), interpretive processes (imaginative stories, ambiguous social scenes, assessing familiar people) and salience of mood congruous material (selective attention, priming and perceptual pop-out, selective learning). The last set of processes is particularly pertinent to social stereotyping research in terms of the conception of categorization and salience. As stated in the last chapter, salience of categories is seen to be a product of novelty and attention by theorists such as Fiske and Neuberg, Taylor, and Brewer. Later in this chapter we will see that perceivers may be more likely to stereotype due to selective attention to negative material (Bodenhausen, 1993) and/or priming of negative material due to the negative valence of intergroup encounters (Wilder, 1993).

In 1991 Bower presented an amended model of mood and memory that accounted for mood congruent judgmental biases in the absence of mood-state-dependent recall by attenuating the correlation between judgmental biases and recall biases. As Bower states:

“Whereas the earlier model viewed associations as running from the attitudinal object to the belief, and thence to the affect, the amended model assumes that the attitudinal object can be associated directly to the affective valence as well, not only via the belief.” (1991, p48)

The amended model suggests that emotion can influence such areas as original learning (stimuli may be interpreted as either positive or negative depending on the perceiver’s mood state); attention and rehearsal of mood congruent facts resulting in stronger associations between stimuli, fact and valence node further resulting in a correlation between recall and judgment biases; and the actual judgment itself by activation of general affect nodes which spread activation to positive versus negative valence nodes associated with the stimulus thereby distorting the judgment in a mood congruent direction.

In a recent discussion of the associated network model (Bower & Forgas, 2001), the model is presented as offering “...a simple and parsimonious explanation for a broad range of mood congruity effects on memory and judgments.” (p115). The authors state that the associative network framework provides a way of understanding both affect-appraisal and affect-infusion effects. Some recognised weaknesses of the model are discussed in terms of Forgas’ Affect Infusion Model (AIM) and Bower and Forgas state that the AIM offers an integrative framework for delineating specific effects. We will review the AIM later in this chapter.

Bower’s theory, while not directly related to stereotyping or group perception, had a major influence on a number of later researchers in the area. Mood-state-

dependent recall and mood congruency effects were to be the basis of explanations of stereotypic responses. In particular, the conceptualisation of stereotypes as negative evaluations and the idea that negative mood leads to negative judgments via mood congruency effects was an important part of some later models. These models will be examined in the next chapter but we will now turn to another of the most influential theorists of the 1980's, Alice Isen.

In her article of 1987, Isen puts forward a complex and detailed review of the literature pertaining to the influence of positive affect on social behaviour and cognition and presents some theoretical implications of the data that serve to raise some important questions in regard to future research. This work will be dealt with in some detail as it is directly relevant to the effects of mood on stereotyping, group processes and categorization. Firstly, however, some earlier work that deals with both positive and negative affect will be reviewed as it is here that Isen sets down the groundwork of her model.

Clark and Isen (1982) put forward an associative network theory of affect, memory and cognition similar to Bower (1981), however Isen (1984) is critical of this original stance in some ways and presents an argument based on schema or contextualist theory. Isen sees affect as having a role similar to semantic meaning and suggests that affect may also function as a simple context cue, or that these two functions may interact. Citing the work of Bartlett, Allport and Kulpe, Isen states that context may change the meaning of stimuli. As a context cue or type of meaning, affect may influence the response to stimuli by bringing into play meaning associates, experiential associates, interpretation of stimulus properties,

reward values and both general and specific motivational effects. Cognitive organisation may be influenced by affect in terms of the way in which stimuli are “grouped, organised and related to one another.” (1984, p225).

Isen makes two points of interest in regard to the differences and similarities between positive and negative affect. Firstly, she states that the effects of negative affect on cognition are less consistent than positive affect and secondly, that the idea of symmetry between positive and negative affect is often assumed but less often upheld by the data. Negative affect, it is stated, sometimes produces opposite effects to positive affect and sometimes produces the same type of behaviour. Further, negative affect may well produce no effect at all. Isen explains this apparent paradox by suggesting that people in negative moods may well *act like* they are in a positive mood in order to improve their current mood state and, in fact, studies that show symmetrical (opposite) effects of negative and positive affect can be explained using the concept of experimenter demand. Participants in these studies have been *instructed to attempt to maintain their mood* (mood has usually been induced via hypnosis or the Velten procedure¹) rather than repair it and therefore do not engage in strategies to improve a negative mood state.

Isen also puts forward two other factors that may account for the discrepant data. Firstly, negative material may be less accessible, interconnected and elaborated due to repeated mood repair strategies. This, in conjunction with motivation for mood repair would lead to the attenuated effect of negative material. Second, and

¹ The Velten Procedure is a series of self-referent statements designed to induce either a positive or negative mood state. Participants are instructed to read through the statements in order of presentation.

perhaps more importantly, positive and negative affect may be conceptualised as distinct states rather than “opposite ends of one bipolar dimension” (p202). By conceptualising these states as distinct, one would not then assume that the data should reflect “opposite” effects.

One of the major points of Isen’s 1984 review is that “...complex processes such as interpretations may surely play a role in affective experiences...” (p226). Isen is at pains to point out though that this approach does not imply a reasoning process and that simple automatic processes may be responsible for much of what we feel. She states that this way of viewing affect is “peculiarly cognitive”. The main argument is that affect is more than simply a network of associations between nodes, more than simple accessibility to associated information as this approach may describe only the process. The real influence of affect on cognition is its ability to change the meaning of stimuli through contextual cueing.

Isen expands these concepts in her 1987 paper wherein she argues even more strongly for a meaning based conceptualisation of affect and cognition. Here, she focuses on positive affect in particular and goes a step forward in the model by adding the term “constructionist”. Isen states that “...cognition is an active process...meaning, interpretation, motives and goals of the person will play a role in the thought process” (Isen, 1987, p245).

According to Isen, work carried out in the late 1970’s and early 1980’s showed that positive affect influences perceptions and actions in a number of ways. It has been found to be associated with increased sociability, increased cooperativeness,

benevolence to both self and others, decreased aggressiveness, a problem-solving attitude to negotiation and cautiousness in threatening situations. These effects have been thought to occur due to positive affect's mediating role in frustration tolerance and perceived resources. Isen puts forward an examination of the influence of affect on areas such as decision-making, memory, thinking, and problem solving before going on to the realm of group processes and stereotyping.

Firstly, Isen deals with the influence of positive affect on memory and states that affect can influence retrieval of material from memory by acting as a cue that renders positive material more accessible. Further, affect can influence the type of material being learned at time of encoding (mood-congruent learning). A third effect of affect on memory is state-dependent-learning whereby affective state at time of encoding matches affective state at time of retrieval and facilitates recall because of this match. Isen warns however, that this last effect has only been infrequently found and that it may occur under circumstances where the material to be learnt is meaningless or where other forms of interpretive learning are difficult. Isen believes that affect has its main effect on memory through meaning. This suggests that positive affect may be the basis of a cognitive category in itself. "Positive affect appears more often to influence memory through an impact on meaning, cueing material that is meaningfully related to positive affect or "in" the positive affect category." (Isen, 1987, p218).

The author goes on to discuss the question of what exactly is positive material and states that, rather than seeing positive material as simply being pleasant material,

it is more likely to be dependent on the specific individual – positive material being whatever that person has stored as related to their category of positive material and therefore related to the category of positive affect. This is an important point in terms of the major argument of this thesis - that positive material is not simply whatever is considered pleasant in an a priori manner and that positive affect is related to an individual's own self relevant category (or categories) of positive material. Positive affect then, is not a generalised positive state but is related to self-knowledge and experience, to self-concept within a particular context. Work by Isen and Daubman, (1984), Murphy and Medin, (1985), Roth and Shoben, (1983), and Smith and Medin, (1981), supports the notion that not only do our categories depend on the experiences that we have had and our own categorisation schemes, but also that the categorisation situation can influence the content of the category. "Thus, the contents of categories may vary from time to time or situation to situation, as well as person to person, as people construe the category in the situation. The same is likely for the affect category." (Isen, 1987, p219). These ideas are explored in more detail in Chapter 5.

Isen also looks at the influence of positive affect on problem solving and states that not only the content of material accessed but also the strategies used to approach a problem can be affected by mood. Isen states that participants with positive affect are more likely to use intuition when solving a problem and may be more likely to use the availability heuristic (Tversky & Kahneman, 1973). In a study that examined mood and problem solving, results showed that in both these circumstances the use of these strategies led to participants giving incorrect answers to the problem, however Isen states that "...there may have been no way

for them to have solved the problem other than via the heuristic, once the task was put to them. In that case, it may be that the use of the heuristic did not impair performance but rather provided the only means even to attempt a solution to the problem.” (p228). Further the use of a heuristic to solve a problem may actually be the best strategy rather than the only one. Isen notes that participants who were happy were more likely to use a strategy that involved using broad categories to deal with large amounts of information in order to efficiently narrow the range of alternatives when faced with a complex problem-solving situation. In this case, these participants reached a decision more quickly, engaged in less rechecking of information and eliminated unimportant information (Isen & Means, 1983). Positive affect then, may lead participants to apply heuristics but only when the situation is complex and otherwise unmanageable, a time when heuristics are useful and efficient and allow the situation to be structured in meaningful terms.

Indeed, Isen goes on to discuss studies that have shown that positive affect can lead to more creative or innovative thinking and that any impairment in performance due to the use of heuristics “...should not be assumed to be attributable to lessened cognitive capacity...Rather, it is likely that positive affect influences strategy and organisation.” (1987, p231). The idea that positive affect may actually effect cognitive organisation has been explored by Isen in five studies on categorisation, three studies on word association and several studies on organisation of memory and creative problem solving. Results in the studies of categorisation have shown support for the idea that people in positive moods tend

to make larger groupings (group more items together) and rate less prototypical exemplars as members of a category in categorisation tasks.

Positive affect, then, tends to make people see things as more related to each other and the effect is not limited to purely positive material. Isen makes an important note about this effect:

“...the integrative process that is being proposed might predict more differentiation, rather than more clustering together, under circumstances where the participants were asked how many different groups they *could* identify. This is because the idea under discussion proposes that the person who is feeling happy may recognize more features or aspects of ideas or items and thus be able to group the items together, often on the basis of an otherwise unrecognised relationship or dimension, when asked to identify the ones that “go together” or when asked how good an exemplar of a concept an item is. However, if asked to differentiate among categories, persons who are happy would be expected to be able to find more bases for differentiation, just as they have for similarity when asked about similarity.” (1987, p234)

The above point is important in relation to the issue of stereotyping. Stereotypes may change if perceivers change the way they interpret ingroup and outgroup membership. Finding more bases for similarity (including more people in each group, possibly more people in the ingroup rather than the outgroup) may change the stereotype of both groups. The same conclusion would be drawn if more bases are found for differentiation.

Isen goes on to discuss this point and suggests that if people in positive moods see themselves as more related to others and are more inclusive in their definition of the ingroup then this should improve intergroup relations. However, if more differentiation occurs or if greater integration only applies to certain others (the most similar to self on a particular dimension) then intergroup relations could be made worse. In terms of stereotyping, Isen suggests that firstly, positive mood could lessen stereotyping if it relies on the existence of an outgroup, as affect may influence categorisation such that larger ingroups and fewer outgroups are formed. Secondly, improved integrative ability could result in change in stereotypes, as people are more likely to be able to integrate disconfirming information into the stereotype. However, Isen states that if stereotyping is seen as the use of heuristics this may mean that positive affect leads to more stereotyping – a major theme in the work on mood and stereotyping produced in the 1990's. Isen concludes with the suggestion that although happy people may have fewer occasions for stereotype use, those groups that do remain defined as outgroups will be readily stereotyped. It can be seen here that this view reflects the era's meta-theoretical approach that stereotypes are cognitive energy saving devices and that they pertain to the negative appraisal of outgroups.

Both Bower (1981, 1991) and Isen (1984,1987) focus on the ways in which affect is associated with similarly valenced material in memory. For Bower, the way in which affect works in memory is via direct associations in the affective network which influence original learning and subsequent recall. For Isen, the focus is on the way in which affect works as a cue to material in the affect category and the way in which affect influences cognitive organisation and interpretation of

information via meaning. Other researchers have suggested that mood congruent recall has been overemphasised in its role and that a model that takes into account "...the informative function of affective states in controlled inference processes..." (Schwarz, 1990, p529) provides a better fit with the data.

3.3 The mood-as-information approach

Schwarz and Clore (1988, p46) state: "Specifically, we suggest that individuals may use their perceived affective reactions as relevant information when making evaluative judgments." The authors propose that rather than judging a target on the basis of recalled features, individuals may use their feelings either about the target themselves, or about some unrelated issue, as a reaction to the target. In this way, the target may be evaluated positively or negatively due to feelings of the perceiver and not necessarily due to the target themselves. This theory is drawn from previous research on the misattribution of arousal (Zanna & Cooper, 1976; Zillman, 1978).

Schwarz and Clore (1988) compare their "affect as information" account with the preceding models of Isen and Bower and suggest that there are three main differences in the predictions of the approaches. Firstly, the impact of affective states on evaluative judgments depends on how those states are perceived in terms of their informational value. If the perceiver attributes their feelings to some other source, then their judgment of the target stimulus would not be influenced by their affective state as that state is failing to provide information relevant to the

judgment at hand. The mood congruency approach predicts that mood related to *any* stimulus, regardless of attributions of source, would trigger mood congruent information from memory that, in turn, will influence judgments.

Secondly, the non-emotional content of any mood-inducing stimulus should be irrelevant. Only information that is relevant to the information value of the affective state should be taken into account therefore evaluation effects should generalise to many different judgments. The mood congruency account would state that it is the content associated with the mood that is responsible for mood congruent effects, whereas the mood-as-information account would state that it is the affective state itself that is used as information when forming a judgment. Thirdly, mood congruent memory predicts that mood effects are augmented when mood at original learning is matched by mood at recall. The mood-as-information account does not require this match, however, as mood at encoding should not impact on judgment, only mood at judgment.

Several empirical studies were carried out to investigate these predictions (Schwarz & Clore, 1983; Schwarz & Clore 1986). In the first of these (Schwarz & Clore, 1983), participants were interviewed by telephone and asked to make ratings about their overall life satisfaction either on rainy or sunny days. Participants who were given the opportunity to attribute their bad mood to the weather (when it was raining) made higher global life satisfaction ratings than when they were not given this opportunity. Participants who were interviewed on sunny days made higher ratings than those interviewed on rainy days except when rainy day participants attributed their mood to the weather, when their ratings

were similar. The authors suggest that this “discounting effect” supports their hypothesis that moods serve as a source of information.

A further study (Schwarz & Clore, 1983) had participants use a recall and write mood induction procedure and generally found that participants who recalled and wrote about positive life events had higher levels of global life satisfaction than participants who wrote about negative life events. This difference was not found however, when participants were induced to attribute their mood to the room they were in (the experimental room was a special soundproof room that participants were led to believe would either make them feel elated or tense). It was concluded that participants use their current mood as a basis for judgment only when this mood cannot be directly attributed to some other source, when the informational value of the mood is discredited. These results also fail to support the mood congruent recall account as participants were not influenced by their recall of negative life events when they could attribute their mood to the room they were in. These studies deal with the first of the predictions described above.

In a study that dealt with the second prediction, that mood effects should generalise to judgments other than those directly related to the mood stimulus, Clore, Schwarz and Kirsch (1983, cited in Schwarz, 1990) induced positive and negative moods by having participants fantasise about a pleasant or unpleasant date, or a pleasant or unpleasant holiday. Participants then read and evaluated ambiguous vignettes about either a person or a holiday. Results showed that participants evaluated both the person and the holiday more positively when they were in a good mood compared to a bad mood no matter which mood induction

they had undergone. Schwarz (1990) states that the evaluations made reflect only participants' mood at the time of the judgment (the information function of mood biasing the judgments). The mood congruency account would have predicted that the content of the vignettes in interaction with the type of mood induced should result in additive mood congruency effects. This was not supported by the data whereas the mood-as-information account was.

To investigate the third prediction, that mood effects are augmented when mood at original learning is matched by mood at recall, Schwarz and Clore (1986) used hypnosis to induce either positive or negative mood in participants and then re-hypnotised them at another time. At both times participants read and made judgments about an ambiguous person description. In this way, the design crossed mood at encoding with mood at retrieval. Mood congruent recall would suggest that retrieval should be enhanced when mood at learning (first judgment) matched mood at retrieval (second judgment) however this was not supported by the data. The second judgment was only influenced by mood at that time, not by mood at the time of the first judgment. Again, the authors state that their mood-as-information account is supported as an alternative to the mood-congruent memory account of Bower (1991).

Schwarz (1990) discusses the question of *when* perceivers are more likely to use the information functions of mood and emotions. He states that there are four possible conditions under which it is likely that individuals will follow the "how do I feel about it?" heuristic. These are: when the judgment to be made is an affective one; when other information about the judgment is unavailable or

limited; when the judgment is too complex to be made using a more systematic processing strategy and when cognitive capacity is limited due to time constraints and/or task demands (Schwarz & Clore, 1983; Schwarz, Servay, & Kumpf, 1985; Schwarz, Strack, Kommer, & Wagner, 1987).

Schwarz and colleagues extended the above model to explain the relationship between mood and psychological situations. It is this extension of the model that is most important in regard to mood and stereotyping. Positive moods are seen to signal to the perceiver that the present psychological situation is "...characterised neither by a lack of positive outcomes nor by a threat of negative outcomes." (Schwarz, 1990, p543). On the other hand, negative affect informs the individual that "...the current situation is problematic...characterised either by a lack of positive outcomes or by a threat of negative outcomes." (p543). This information informs the perceiver about the type of action that needs to be taken in a specific situation. Action in this model relates to information processing style.

Positive moods then, signal a safe environment, in which no action is required. Perceivers in a good mood will see little need to engage in cognitive effort unless some other motivational goal is evident. They may use simple heuristic cues, be more likely to try new procedures and make more creative associations. In terms of stereotyping, this is an important point in the mood-as-information argument. If stereotypes are seen as heuristic energy saving devices, then it follows that perceivers in a good mood would be more likely to stereotype, as they see no reason to use systematic processing. As outlined in the previous chapter, systematic processing is seen as effortful and leading to individuation in person

perception. According to Schwarz and colleagues' model it would be people in a negative mood that would engage in this sort of processing. Negative mood signals that the psychological environment is not safe and that careful, systematic processing is necessary in order to assess the situation and find appropriate solutions. People in negative moods, then would individuate, not stereotype.

The mood as information model was extended by Bless, (Schwarz & Bless, 1991) in collaboration with Schwarz and colleagues, in the early to mid 1990's. The model examined motivational variables and the work carried out was more directly focused on stereotyping and group behaviour. This work will be examined in detail in Chapter 4, but now we will move on to two more general models of affect and social processing that evolved in the early 1990's, that of Sinclair and Mark (1992) and the work of Forgas (1995).

Both of these models were developed as a direct result of the work of the earlier theorists above. The resurgence of affect related research in the 1980's, drawing from the more cognitive work on affect and memory by Bower and Isen, and developing into an examination of the effect of moods on social judgment, creativity, problem solving and information processing style had resulted in sometimes opposite predictions and findings. Researchers such as Sinclair and Mark, and Forgas were motivated to explain these conflicting viewpoints by attempting to amalgamate ideas from both the mood and memory approach and the mood-as-information approach. Affect research was also becoming more enmeshed in the meta-theory of the cognitive miser. Researchers were more interested in affect's influence on information processing style, in particular the

idea that positive mood led to more heuristic processing and negative mood to more systematic processing.

3.4 Models of mood and information processing style: the development of affect and social judgment research

In 1992, Sinclair and Mark presented a processing strategy explanation of mood effects. The model sees processing strategy as a mediator of mood effects via three processes: cognitive capacity, mood maintenance/mood repair, and mood-as-information. These processes, in interaction, lead to less systematic processing under positive affect and more systematic processing under negative affect. The authors suggest however, that there are various boundary conditions that may attenuate these outcomes. The three processes, their predictions and boundary conditions will now be examined.

The first of the processes that are seen by Sinclair and Mark (1992) to mediate mood effects is cognitive capacity. Citing work by Isen and colleagues (1984, 1985) the authors suggest that positive mood brings more material to mind and that this material is more diverse. This in turn may overload cognitive capacity, which leads participants in happy moods to use heuristics or simplification strategies. Sinclair and Mark suggest however, that some research has shown happy participants will persist in the use of less systematic processing even when given all the time they need to complete a task. This would suggest that cognitive capacity alone does not give an adequate explanation of mood effects. The authors conclude that positive affect may indeed lead to cognitive overload, however given enough time and/or motivation, perceivers should overcome these

limitations and the expected mood effects (use of heuristic processing) will not arise. Therefore evidence of mood effects must be due to something more than just cognitive capacity limitations.

The motivational aspect of mood maintenance or mood repair (the second of Sinclair and Mark's processes) is important here. Isen has suggested that people may *act* as if they are in a positive mood when they are not, in order to improve their mood state. Further, people in positive moods will try to maintain that mood in the face of a threatening psychological situation. People in positive moods may avoid systematic processing as one way of maintaining their positive mood. People in negative mood states may engage in systematic processing in order to distract themselves from their negative mood. There is, of course a paradox here in that if systematic processing interferes with positive mood state then why would negative mood participants use it to alleviate their mood?

Sinclair and Mark cite work from Isen (1984) that happy participants were less willing to engage in helping behaviour if that behaviour was likely to threaten the positive mood state and negative mood participants were more likely to engage in helping behaviour if they saw it as a way to repair their negative mood. Assuming that helping behaviour is linked to systematic processing, the authors argue that positive affect participants will avoid this behaviour, unless systematic processing is likely to result in affect maintenance due to personally relevant or positively valenced stimuli. Similarly if there is an expectation of evaluation of behaviour by either self or other, or if failure would lead to affect impairment, then happy participants will engage in systematic processing. In summary, in

terms of affect maintenance and repair, it would seem that happy perceivers will engage in systematic processing if it is likely to maintain their mood and avoid it if it is likely to interfere with their mood. Negative mood participants are more likely to engage in systematic processing whether or not it involves affect repair.

The third process put forward in Sinclair and Mark's model is that of mood-as-information. Based on the work of Schwarz and Clore (1983, 1988, 1990), there are two ways in which affect can act as a source of information. Mood may act as a direct source of information about a judgment if mood is seen as relevant to the judgment, such as life satisfaction or global wellbeing. Mood may also act as an indirect source of information however, in such a way that people in good moods may see no reason to re-evaluate their decisions because being in a good mood leads them to trust their judgments. People in negative moods may be less likely to trust their own decision-making capability and therefore see the need to engage in systematic processing. External attributions for mood may reduce these effects however.

Sinclair and Mark also discuss work on categorisation in the model and state that positive affect would lead perceivers to categorise more broadly as this would be the simplest strategy. Narrow categorisation would require more systematic processing, which people in happy moods prefer to avoid. However, happy participants would be most responsive to experimenter cues as they would use these as heuristic aides in the situation. This may lead happy perceivers to categorise narrowly if they believe that this is the most efficient style to use in order to complete the task easily. The authors suggest that those in negative

moods would always use systematic processing and be less responsive to experimenter cues due to motivation for affect repair or because they do not trust their processing ability. In research that supports these predictions Sinclair, Mark, and Weisbrod (1990, cited in Sinclair & Mark, 1992) found that positive mood participants did indeed respond to experimenter cues the most and negative mood participants the least, however in the absence of cues, happy participants categorised most broadly – a result that the authors attribute to happy participants' dependence on the use of simple/effortless strategies that do not interfere with mood. Sinclair and Mark (1992) also cite work by Bodenhausen and colleagues (see Chapter 4) on affect and stereotyping as further support for their processing strategies model. The authors agree with Bodenhausen that stereotypes can be seen as heuristics and happy participants' reliance on stereotypes supports the idea that positive affect leads to the use of non-systematic processing.

It can be seen clearly here that the work of Sinclair and Mark is strongly influenced by the cognitive miser tradition. Cognitive capacity and the use of heuristic, non-systematic processing are pivotal to the model with motivation and affect-as-information interacting with capacity to produce the effects predicted. A strong theme in the model is that positive affect interferes with cognitive capacity and motivation for systematic processing, leading happy participants to use heuristics. In the realm of social judgment and person perception, this equates to stereotyping. Again, we can see the metatheory of the cognitive miser and the conceptualisation of stereotypes as cognitive labour saving devices. We will now turn to the last of the general models of affect and social behaviour, that of Forgas (1995).

In 1995, Joseph Forgas presented his Affect Infusion Model (AIM) in an attempt to make up for what he states as a failure of previous theories to "...couch existing explanations within a more general theory of social judgment that specifies what sorts of cognitive strategies are adopted by people under different processing conditions." (p39). The AIM was constructed as a way of explaining and integrating previous findings by proposing that four distinct ways of processing information exist and that these four "judgmental strategies" have different potential for the influence of affect.

The AIM evolved directly from the work of Fiedler (1990) and Forgas' own work with Bower and others (Forgas, 1992; Forgas, 1994; Forgas & Bower, 1987; Forgas & Bower, 1988; Forgas, Burnham & Trimboli, 1988; Forgas & Moylan, 1991). Fiedler proposed a dual-force model of psychological functioning involving the synthesis of two forces, conservation and active transformation. When faced with a stimulus, the perceiver must conserve the original input and also actively transform that input using previous knowledge such as conceptual structures, schemata, and procedural knowledge. In perceptual tasks, this may be as simple as the subjective interpretation of the stimulus. In tasks that require some judgment however, the stimulus itself may come from an internal rather than external source or may consist of a starting configuration that has to be transformed. There is a distinction then between information given and information created by active transformation. Fiedler further states that different tasks may give rise to different use of conservation and active transformation and that these tasks can be referred to as either reproductive tasks or productive tasks

respectively. The important point in Fiedler's model in terms of the AIM, is that only active transformation (brought about by productive tasks) is subject to affective influence.

Forgas, (1995) claims to have extended Fiedler's 1990 model in various ways. Firstly, he states that the AIM deals with motivated and direct-access strategies of information processing for judgments, secondly that the AIM links two major theoretical models of affect-priming (mood congruence) and affect-as-information in terms of their processing implication, thirdly that the AIM deals with contextual factors and their ability to trigger different processing styles and lastly that the AIM distinguishes between the processing and informational aspects of affect.

As stated above, the AIM suggests four strategies for information processing. These strategies can be divided according to the type of processing involved, either reconstructive or constructive. These types are based on Fiedler's concepts of conservation (reproductive tasks) and active transformation (productive tasks). Reconstructive processing involves highly predetermined, directed search patterns while constructive processing involves generative processing. Reconstructive processing can further be broken down into the first two of Forgas' strategies: direct access and motivated processing. Direct access processing involves the direct recall of a pre-existing evaluation whereas motivated processing occurs when there is a pre-existing goal. Forgas considers these two strategies to be relatively affect-free. The second two of Forgas' strategies are of the active transformation or constructive type and consist of either the use of heuristics or

substantive, generative processing to produce an outcome. Forgas states that it is these two types of processing that are “high infusion” strategies whereby affect may influence the outcome either directly or indirectly.

Forgas states that the model is based on two major assumptions about social judgments drawn from the traditional social cognitive approach. Firstly, that mood effects are dependent on type of processing strategy used by a judge (process mediation assumption) and secondly, that social perceivers are usually inclined towards effort minimisation in information processing, with the amount of effort actually expended dependent on features of the target, the judge and the situation (effort minimisation assumption). These two assumptions interact to produce the whys and wherefores of strategy choice and the subsequent influence of affect on the outcome of that choice. Various factors are seen to influence the choice of strategy including: target familiarity, complexity and typicality; target relevance to the perceiver; perceiver motivation; cognitive capacity. Further, affect itself may play a part in selection of processing style in that affect may impair cognitive capacity, create more open or closed cognitive style, or affect motivation.

As stated above, Forgas states that in reconstructive processing, affect should not play a part. The use of direct access processing, where a judgment is the outcome of direct retrieval of pre-existing ideas, and the use of a motivational strategy, where the judgment is the outcome of a specific goal are not open to the influence of affect. On the other hand, the constructive processes can result in affect-influenced judgment. In heuristic processing, Forgas states that the affect-as-

information principle takes effect. In this case, affect has its influence in a direct manner, with the perceiver using their current mood as a cue to judgment about a related or unrelated target. This follows on directly from the work of Schwarz and Clore outlined earlier. In the case of substantive processing, affect has its influence in an indirect manner, when the affect-priming principle is involved. This follows on directly from the work of Bower and Isen outlined earlier. In this way, Forgas states, the model seeks to reconcile work done in both “camps”.

The most important aspect of the model for our purposes however, is the treatment of stereotyping within it. There appears to be some confusion within the model on this point with Forgas stating at one stage that stereotyping would belong in the reconstructive set of strategies as it involves the direct retrieval of a pre-existing knowledge base. In this case, little processing is involved and Forgas states that stereotyping “...is clearly a low affect infusion strategy, because it involves little or no constructive elaboration, and the strongly cued retrieval of an existing crystallized judgment is likely to be quite robust and resistant to affective distortions and even disconfirmation.” (Forgas, 1995, p46). However, Forgas also likens stereotyping to the use of heuristic processing in line with Bodenhausen’s conceptualisation outlined in the previous chapter. In this case, stereotyping would be open to affective influence as Forgas sees the use of heuristics as a form of constructive processing, a type that is high in affect infusion, in particular, influence of the affect-as-information principle.

Some more specific work by Forgas in the area of mood and intergroup processes will be dealt with in the next chapter. At this stage, however, we can see the

strong influence of the cognitive miser tradition in the general AIM model. This tradition infused not only the general models of affect and cognition, and affect and social judgment, but also the more specific work that directly examined affect's influence on stereotyping and group behaviour.

3.5 Recent action in relation to models of mood and social processing

Later formulations of the models outlined in this chapter have been published as recently as 2001 (Bless & Forgas, 2000; Forgas, 2001; Martin & Clore, 2001), however the approach has stayed essentially unchanged since the earlier work of the 1980's and 90's. Forgas went on to elaborate the AIM in the realm of planning and performance of strategic social behaviours (Forgas, 1998a, 1998b, 1999a, 1999b) and personality differences in the adoption of motivated processing (Ciarrochi & Forgas, 1999). The basic premises of the AIM have not changed in this time and, in fact, in 2001, Forgas states: "...positive moods typically generate more superficial and heuristic and less systematic processing strategies, whereas negative moods trigger more vigilant, effortful processing styles." (p 109).

Fiedler (2001) reviews the AIM in the light of his model of assimilative and accommodative processing. As stated above, the AIM was originally formulated in terms of extending these ideas and Fiedler pays tribute to the ability of the model to act as an organizing framework for affect research. Fiedler notes, however that the AIM does not deal with important additional conditions for affect infusion to occur – that an open, assimilative and top-down processing style must be adopted. He states that a model based on the adaptive distinction between assimilative and accommodative processing (see above for an

explanation of this distinction), is "...the key to understanding the role of affective states in regulating cognitive-processing styles." (p182). It can be seen here that the general approach is still very much in line with the cognitive miser account of perception and information processing. Fiedler states that positive moods engender assimilative processing, while negative moods engender accommodation processes.

Similarly, in two recent formulations of the "affect-as-information" model (Clore, Gasper, & Garvin, 2001; Schwarz, 2001), it can be seen that there has been little change. Specifically, Schwarz states that under normal circumstances (when there are no currently active goals for effortful processing), people in happy moods "...spontaneously prefer heuristic strategies, whereas individuals in negative moods prefer systematic strategies." (p173). Clore et al. (2001) state: "...positive affect may promote top-down, theory-based processing in which one relies on cognitively accessible information (...stereotypes...), and negative affect may promote bottom-up, data-based processing, in which one relies on data from the external environment..." (p140). Again, it is obvious from this that current trends in research on mood and social processing have not wandered from the course laid down in the early years.

3.6 Overview

The aim of this chapter was to review literature pertaining to the interplay of affect, cognition and social perception. The purpose of this review was to examine the development of theories of affect and cognition, and affect and social perception in the light of the overriding meta-theory of the cognitive miser. The

chapter reviewed the early cognitive theories of Bower and Isen that examined the effects of affect on memory and social cognition. It was shown that these theorists epitomised the resurgence of interest in affect that occurred in the late 1970's and through the 1980's. The work of Schwarz and Clore – the “affect-as-information” account – was also reviewed, along with the extension of this model examining the way in which affect informs the perceiver of changes to the psychological environment. It has been shown that these early models of affect and cognition were the cornerstone of later theorising in the area of affect and social perception and were the antecedents of theories of mood and stereotyping.

The theories of Sinclair and Mark, and Forgas were also examined as later models that attempted to integrate and synthesise both data and theory from the earlier work. Forgas in particular attempted to develop a theory grounded in social behaviour and social judgment. Finally, a brief look at later formulations of the models made it clear that more recent work has not altered the basic premises made in earlier presentations. It has been seen that research of this genre has, as its central theme, the idea that information-processing strategies, as mediated by affective forces, are the deciding factors in perceivers' responses to both internal and external stimuli. In line with the concept of the cognitive miser, humans are motivated by the search for minimal effort in information processing and hampered by cognitive overload and limited cognitive ability.

This approach to the study of affect and cognition, in tandem with the same approach as the overriding feature of the study of stereotyping and group processes, has led to a particular set of literature that deals with the interplay of

affect, cognition and social perception – in particular, the perception of people as either group members or individuals. The concept of stereotypes as heuristics, shortcuts, cognitive tools to cope with cognitive demand, and the concept of affect as influencing the use of such cognitive tools has led to the development of a particular approach to the study of affect and stereotyping. In Chapter 4 we examine the work that has been carried out in this area.

CHAPTER 4

Research into the effects of mood on intergroup behaviour and stereotyping

4.1 Introduction

Social groups have always been associated with strong feelings. Even a fleeting examination of the social psychology of the group is enough to reveal the deep-seated relationship between intergroup perceptions and intergroup feelings. In particular, strong negative emotions, such as anxiety, hatred, anger and resentment have always been considered the hallmark of intergroup relations. Indeed, as outlined in Chapter 2, decades of research has examined the aetiology, behavioural manifestations, and possible prevention or inhibition of prejudice, discrimination, and racial hatred (eg: Allport, 1954; Sherif, 1967; Tajfel, 1969) and the relationship of stereotyping to those processes.

In their recent edited volume, "From prejudice to intergroup emotions: Differentiated reactions to social groups" (2002), Mackie and Smith focus on those emotions that are *integral* to the intergroup experience. Again, the feelings and emotions concerned are almost entirely negatively framed with chapters on ingroup bias (Shah, Brazy & Higgins), intergroup threat (Blascovich, Mendes &

Seery; Stephan & Renfro), emotional distress (Bizman & Yinon), collective guilt (Branscombe, Doosje & McGarty), and even outgroup paranoia (Kramer & Jost).

Yet, alongside all this emphasis on dislike, resentment and general negativity in relations between groups, stands the hypothesis that it is happiness – positive rather than negative mood – that produces stereotyping. What is the explanation for this counter-intuitive notion? The examination of the role of mood in stereotyping has consistently interpreted effects in terms of a cognitive framework that focuses on information processing and capacity constraints. The role of affect has almost always been in terms of affect that is *incidental* to the group context. In short, the *meaning* of the intergroup relationship is ignored. The perceiver is reduced to a cognitive information-processing machine wherein the experience of affect and the experience of group membership are separate. Why is it that although research into group behaviours such as prejudice and stereotyping has always acknowledged the depth of feeling involved in those processes, and the relationships between groups that engender those feelings, the research into the effects of feeling on stereotyping has ignored those relationships? And why is it that we have such a stark contrast between integral feelings of distrust, prejudice and even hatred of outgroups and the finding that incidental happiness leads to stereotyping?

As outlined in Chapter 1, the aim of this thesis is to reinterpret the substantial work on the role of mood in stereotyping within an alternative framework which takes into account the meaningful relationship between self, group context and stereotyping. Before we can introduce that framework however, we need to

review in depth the literature that defines this particular niche in social psychological research. In the first part of this review, we will see that the effects of affect on stereotyping, and related group behaviours such as perceptions of group variability, illusory correlations, and ingroup bias, have been investigated by a number of researchers whose interest stems from various social psychological fields. This work consists of relatively isolated investigations carried out as part of other, broader programs and has contributed considerable evidence relative to our understanding of the relationship between mood and stereotyping. However, there have also been two large programs of work that have focused specifically on investigating the role of mood in the stereotyping process.

Mood effects have been investigated in relation to group variability and the formation of illusory correlations (eg: Stroessner, Hamilton & Mackie, 1992). We will examine this work first, followed by various research that looks at the particular role of positive affect in intergroup behaviour, including ingroup bias and stereotyping. Following this, we will examine some studies that have focused on anxiety (Wilder, 1993; Fiske & Morling, 1996). We will then return to the AIM of Forgas (1995) and his specific work on stereotyping within the model. Some interesting studies by Esses and colleagues using an unusual mood manipulation and a Katz/Braly checklist methodology will then be examined.

As stated above, two large research programs have been carried out in this field and we will examine these in the second part of the chapter – that of Bodenhausen and colleagues and that of Bless and colleagues.

4.2 Mood and stereotyping: some relevant evidence

Mood has been found to influence the development of illusory correlations and to affect the perception of group variability. Experiments by Stroessner, Hamilton and Mackie (1992; see also Hamilton, Stroessner & Mackie, 1993) supported the idea that affect (both negative and positive) can diminish the likelihood of a distinctiveness-based illusory correlation being created due to interruptions to cognitive capacity. This interruption is seen to interfere with the processing needed to form the differential group perceptions that are the basis of distinctiveness-based illusory correlations. However, in the case of expectancy-based illusory correlations where the perceiver relies on already formed stereotypes about certain groups, affect was seen to augment this process. The authors suggest that the same process underlies both outcomes, which are “most easily interpreted by viewing affect as constraining the observer’s capacity for thorough and efficient processing of information about group members.” (Hamilton et al., 1993).

Stroessner and Mackie (1993) also report on the effect of mood on group variability and draw much the same conclusion, that “both positive and negative affect can have detrimental effects on careful information processing.” (p68). Both positive and negative affect are reported as related to perceptions of group homogeneity, which is considered to be “one potential undesirable effect on intergroup perception” (p79). Later, Queller, Mackie and Stroessner (1996, see also Mackie, Queller, Stroessner & Hamilton, 1996) reported that these effects could be ameliorated in happy people by increasing the salience of distinctive information about the group. The authors believe that positive affect interferes

with the ability to recognise and process differentiating information (due to its effects on cognitive capacity) and that this is the way in which positive affect mediates the use of stereotypes. It can be seen by this brief review that the work by Stroessner, Mackie and colleagues fits squarely into the cognitive miser camp.

In Chapter 3 we outlined the work of Isen, in particular the examination of positive affect, memory and categorization. Later work, in collaboration with Dovidio and Gaertner (Dovidio, Gaertner, Isen & Lowrance, 1995; Dovidio, Gaertner, Isen, Rust & Guerra, 1998; Dovidio, Gaertner & Loux, 2000), led to the examination of the role of affect in the Common Ingroup Identity Model. The Common Ingroup Identity Model (Gaertner, Dovidio, Anastasio, Bachman & Rust, 1993) suggests that social categorization is paramount to ameliorating and creating intergroup bias. The model proposes that recategorization of outgroup members to a more inclusive ingroup will ameliorate intergroup bias and lead to the creation of more positive group relations. A series of experiments showed support for the idea that positive affect may facilitate more inclusive social categorization which in turn, lowers levels of intergroup bias. Dovidio et al. (1998) state that their results are consistent with memory-based, affect-priming theories such as those by Bower (1981,1991), Forgas (1995) and Isen (1987,1993).

Abele also investigated the impact of positive mood on intergroup differentiation and stereotyping (Abele, 2000, Abele, Gendolla, & Petzold, 1998) and concludes that happiness leads to stereotyping due to greater elaboration of the group label in positive moods. Consistent with the work of Isen and Dovidio et al., above,

she states that enhanced, creative elaboration of the stereotype information means that the person engages in more thought about the expectation generated by the label and/or the implications of the stereotype. In this case, information processing is seen as actually being deeper for those people in happy moods rather than heuristic, a conclusion that is consistent with the work of Bless and colleagues (see below). Abele (2000) also states that positive moods signal that the world is a pleasant and safe place and that the person is therefore free to do and think whatever they like. This is similar to the mood –as-information account discussed in Chapter 3 (Schwarz & Clore, 1988) but focuses on positive mood engendering creative thought rather than heuristic shortcuts.

Although the previous two accounts of the role of mood in intergroup behaviour and stereotyping do not see positive mood as necessitating the use of cognitive shortcuts, and are not specifically framed in terms of the perceiver as a cognitive miser, nevertheless, the focus of both accounts is the effect of mood on information processing. Both accounts see affect as influencing the way in which information is encoded, remembered and used due to its effects on memory (mood congruency), and processing (more or less elaboration of information). Similarly, both accounts deal with affect as incidental to the intergroup context with no investigation of the particular relationship between the perceiver and the group in question. Interestingly, Dovidio et al. (2000) note the importance of the subjective experience of incidental positive affect on intergroup relations. The authors allude to the insight that may be provided from the study of incidental affect into the role of integral affect in intergroup contexts. What is missing, however, is the role of the perceiver as a meaning seeker, and therefore the self as

an integral part of the affect-intergroup relationship. We investigate this idea further in Chapter 5.

Both Wilder (1993; Wilder & Simon, 1996) and Fiske (Fiske & Morling, 1996) have investigated the role of anxiety in stereotyping. Anxiety was manipulated by telling participants that they would have to give a speech, that they would be given mild electric shocks, or by giving false feedback. In some studies (Fiske & Morling, 1996) participants were pre-screened for trait anxiety. Both Wilder and Fiske conclude that feelings of anxiety will lead people to stereotype due to its interfering effect on cognitive capacity. Wilder (1993) state that anxiety is likely to distract the perceiver, thereby increasing reliance on heuristics. This distraction is caused by the arousal inducing properties of anxiety.

Fiske and Morling (1996) state that anxiety results in the person experiencing intrusive thoughts which then limit the ability to process other information, leading the perceiver to rely on heuristics in order to cope. Lack of power and lack of personal control can both lead to anxiety and therefore stereotyping will be found in the powerless and those searching for control. On the other hand, powerful people stereotype because they need not attend to subordinates allowing for the neglect of accuracy in impression formation, or because they are overloaded due to the pyramid structure of hierarchies, or because they have a high need for dominance which lowers their motivation to attend. Again, it can be seen that the work done on anxiety and stereotyping is fully cognizant with the information processing/cognitive capacity framework. We will now move on to revisit the work of Forgas and the AIM.

While developing the AIM, Forgas investigated the role of affect on stereotypic judgments and intergroup discrimination (Forgas & Fiedler, 1996; Forgas & Moylan, 1991). Using same-race or mixed-race dyads, Forgas and Moylan (1991) predicted that mood should distort stereotype judgments in a mood-consistent direction and that mood biases should be stronger for mixed-race dyads due to these requiring more detailed and inferential processing. Asian or Caucasian, male and female targets were presented as part of a couple that was either mixed-race (e.g.: Asian male target paired with Caucasian female), or same-race (e.g.: Asian male target paired with Asian female). Participants' mood was manipulated and they were asked to make ratings about the target on various personality traits that were then combined to create two factors – competency and likeability. Results supported the author's predictions in that targets were rated more positively on both factors in same-race rather than mixed-race dyads regardless of mood. Forgas and Moylan conclude that this reflects the generally more positive evaluation of balanced relationships, as there was no overall preference for Caucasian targets amongst the mainly Caucasian participants that may be construed as simple ethnocentrism.

Further, Asians were seen as more competent than Caucasians, regardless of dyad composition, gender of target, or mood, a result that reflects the standard stereotype of Asians. However, mood effects showed that, for the competence factor, happy participants made more positive judgments than sad participants, and there was also a mood by racial balance interaction whereby mood effects were weaker when targets were seen to be part of a same-race dyad. Forgas and

Moylan conclude, in line with the AIM, that mixed-race dyads, which are more atypical and unexpected, require more substantive processing which, in turn, allows mood to influence judgments through selective priming of mood consistent associations.

As can be seen above, the conclusions reached by Forgas and Moylan centre on the role of processing style, with context (type of dyad) interacting with mood to result in more substantial processing by sad participants, especially in the mixed-race dyad condition. Looking at the results another way, however, and collapsing the mood variable, there are interesting differences in the ratings of male and female targets, especially male Asian and female Caucasian targets. Female Caucasians are rated as the least competent in both mixed-race and same-race dyads while Asian males are rated as the most competent. For likeability, Caucasian females are rated most likeable of all targets in the same-race dyads and Asian males as least likeable, especially in the mixed-race dyads. These results could be seen to reflect greater use of the Asian male stereotype (competent but not likeable, especially when involved with a Caucasian woman) and the Caucasian female stereotype (not particularly competent, especially when compared to an Asian male, but friendly, especially when in a (perceived) romantic relationship with a same-race partner).

If this was the case, stereotype activation and mood effects are more complex than Forgas and Moylan conclude. Use of the female Caucasian stereotype and Asian male stereotype is *increased* in the mixed race dyad conditions for those dimensions appropriate to the judgment, a result that does not fit with Forgas and

Moylan's conclusion that mixed race dyads result in use of substantive processing and less stereotypic judgments. It is substantive processing that leads to affect infusion in a mood consistent direction and results in less positive appraisals of targets for sad participants. If mixed race dyads actually show signs of increased stereotyping then this would not be an indication of substantive processing, thereby negating the affect infusion effect.

In a series of studies that examined mood effects on intergroup discrimination, Forgas and Fiedler (1996) used a minimal group paradigm and Tajfel's matrices (1970) to induce group bias in participants in either positive or negative moods. The authors found that both positive and negative mood can increase intergroup discrimination depending on context. When personal relevance of the group was low, positive affect resulted in more intergroup discrimination, whereas when personal relevance was high, it was negative mood that increased group bias. The authors conclude through reaction time data and mediational analysis that different processing strategies are being used in the different context. In the first instance, increased intergroup bias by positive mood participants was the result of fast, heuristic processing, whereas intergroup bias in a negative mood was found to be the result of slower, motivated processing. The authors state that these results support predictions from the AIM model.

As suggested in the previous chapter, however, there appears to be some confusion here about exactly how stereotyping and intergroup discrimination work in terms of the AIM. Forgas (1995) states that motivated processing is less likely to be influenced by affect, along with direct access processing, as these

strategies are reconstructive rather than constructive. In the studies above, however, Forgas and Fiedler predict that negative mood will, in fact, engender either motivated or substantive processing (one of the constructive strategies) and that personal relevance would be likely to result in a motivated strategy choice in order to achieve mood repair. In this case, intergroup discrimination is used as a mood repair tool. Happy participants, on the other hand, are thought to choose heuristic processing (the other of the constructive strategies), thereby increasing the salience of the intergroup context and resulting in increased discrimination towards the outgroup. In this case, it seems that the issue here is more of a “chicken and egg” question. The interplay between mood and processing strategy choice may depend on which comes first – a particular mood that engenders a particular processing style, or a processing style that does or does not engender mood effects. The issue of intergroup discrimination and stereotyping, including the effects of salience of the intergroup context – and possible mood effects – on stereotypic responses will be examined further in Chapter 5.

Esses and colleagues did some interesting work in the area of mood and ethnic stereotypes in the early 1990's (Esses & Zanna, 1995; Haddock, Zanna, & Esses, 1994; Schiff, Esses, & Lamon, 1992). Examining a new way of eliciting emotion, Schiff, Esses and Lamon (1992; following Schiff & Lamon, 1989; see also Esses, Haddock & Zanna, 1993), had right-handed participants pull back and lift one corner of their mouths and maintain this contraction for 45 seconds. It had been found previously that performing this contraction on the right side of the mouth elicited positive emotion and on the left side sadness, when contractions were

performed within participants. This resulted in inducing emotion that was without a cognitive involvement (see Bodenhausen, 1993, below).

In this study, facial contractions were performed between participants. Although the results indicated no significant differences in subjectively reported emotional experience, however differences in ethnic descriptions were found as a function of facial contraction condition. Participants provided descriptions of six ethnic groups commonly found in Canada (where the study was being run) by listing as many traits as were necessary to describe a typical member of each group, assigning a valence rating to each characteristic and indicating the percentage of the group to which each characteristic applied. Results showed that for three of the six ethnic groups, stereotype descriptions were more negative when participants had contracted the left side of their face, an action synonymous to inducing a sad mood according to Schiff et al. These results are consistent with those found by Esses et al., 1993 when using more conventional mood induction procedures. The authors conclude that this demonstrates that mood can influence judgments (cognition) independent of mediation by cognitive priming. In the realm of affect and stereotyping this would suggest that negative stereotypes can arise without the need for affect-priming of negative material in memory and without the need for mood-state-dependent recall (Bower, 1991).

In a series of further experiments (Haddock et al., 1994; Esses and Zanna, 1995) similar results were found using a range of mood inductions and stereotype measures. Overall, it was found that negative mood, while not reducing the expression of group stereotypes, may reduce the application of these stereotypes

to specific individuals. This is an important point in terms of other research in this area. In many other studies the finding that negative mood negates the use of stereotyping has been touted as evidence for the use of substantive processing in negative mood perceivers and the use of heuristics in happy moods. A fairly robust finding of the use of stereotypes or intergroup bias by people in happy moods has linked in nicely with the view of stereotypes as heuristics. Categorisation of a target as a group member is itself seen as a cognitive shortcut (Brewer, 1988; Fiske & Neuberg, 1989) and the allocation of stereotypes a natural result of this. If stereotypes are heuristics and happy people tend to use heuristics then it is logical and expected that it is happy people who will stereotype more. If negative mood gives rise to more substantive, bottom-up processing then people who are sad should avoid stereotypes.

The findings by Esses and colleagues show that people in negative moods are just as likely to stereotype a group when asked to as people in happy moods. These results do not support the idea of stereotypes as heuristics or the idea that happy and sad people rely on different strategies in terms of social information processing. The finding that negative mood tends to ameliorate the *use* of a particular stereotype for a particular target is consistent with findings in other studies, as those studies have used impression formation type tasks to show stereotyping. The difference between asking a participant to describe an ethnic group “typical” member, and asking them to judge a particular target in terms of a categorical membership is an important one. Again, this issue will be explored in more detail in Chapter 5. We will now turn to the substantial research programs of Bodenhausen and colleagues, and Bless and colleagues.

4.3 Mood, stereotyping and the use of heuristic processing

As outlined in Chapter 2, Bodenhausen set out a theory of mood effects on stereotyping based on the cognitive miser metaphor that conceptualised stereotypes as “judgmental heuristics” (Bodenhausen, 1993; Bodenhausen, Kramer & Susser, 1994; Bodenhausen, Sheppard & Kramer, 1994). Bodenhausen (1993), states that people use stereotypes when they have either limited motivation or limited capacity to process social information about a target in a more systematic way. Stereotypes are considered to be shortcuts, simplification strategies to cope with a complex social environment. The process of stereotyping involves “top down” processing whereby the perceiver chooses to rely primarily on stereotypic input (stored in long-term memory) rather than the “...concrete, factual data at hand...” (Bodenhausen, 1993, p15). Top-down processing is considered to be easier, simpler and less constraining in terms of cognitive effort.

In opposition to this is “bottom-up” processing that minimises the impact of stereotypes by relying exclusively on the concrete data and “...carefully assessing and integrating its implications to form a judgment.” (p15). This form of processing is seen as cognitively effortful and it is assumed that in normal everyday life, people tend to be unwilling to expend this energy. Only highly motivated individuals will use the cognitive resources they have to process social information in this careful and systematic way, and even motivated people may be limited in their processing by distraction, information overload or task complexity. Further, individuals must not only *process* social data, they must also *transform* this data to a judgment that is overt. At this point, perceivers may

choose to disguise or censor their response to appear less prejudiced than they really are, or to correct for possible stereotypic biases if they are low in prejudice (Bodenhausen, 1993). These activities can only take place if there are no constraints on cognitive processing ability. Affect is seen as a possible constraint, especially those emotions that are associated with arousal such as happiness and anger. It should be noted here that Bodenhausen uses the term “emotion” as interchangeable with affect and is referring to both strong emotional states and the more diffuse mood states. As will be seen below, Bodenhausen has attempted to manipulate strong emotional states in the laboratory with limited success.

Bodenhausen makes a distinction between “integral affect” and “incidental affect”. Integral affect is described as emotion that is directly related to the social context in which a judgment is to be made. It is directly associated with the intergroup situation that gives rise to stereotyping and to the specific outgroup itself. It is important to note here that Bodenhausen explicitly states that this kind of affect will be mostly negative, “...often involving anxiety, irritation, disgust and other negative feelings.” (1993, p14). As outlined in Chapter 2, the assumption of negativity has been one of the main themes of stereotyping research and theory since Lippmann (1922). Incidental affect is emotion that is related to some other source, unrelated to the intergroup context, that influences the perceiver’s propensity to stereotype.

Bodenhausen presents two ways in which affect (either incidental or integral) influences stereotyping through limiting processing capacity. Firstly, he states that there is a link between the arousal inducing properties of affect (Mandler,

1990; Ortony, Clore & Collins, 1988; cited in Bodenhausen, 1993) and the use of heuristic or systematic processing. Secondly, affective states may influence motivation, which in turn influences the choice of processing strategy. Happy and/or angry states tend to lead to the choice of heuristic strategies and sad states tend to lead to the choice of systematic processing. Note that in the first instance the assumption is that the perceiver has no choice over the type of processing involved, it is simply a matter of arousal leading to an inability to think in systematic ways due to limited processing capacity. In the second instance, the perceiver actively chooses to process material in either a systematic or heuristic way (although this choice would be non-conscious).

In the first approach both high and low levels of arousal may lead to heuristic processing. Too little arousal may result in limited alertness, but too much arousal is distracting and may actually "...create biological interference limiting processing capacity and efficiency..." (Bodenhausen, 1993, p17). Either way, perceivers will use heuristic processing rather than systematic processing due to capacity limitations.

To investigate the effects of low arousal, Bodenhausen (1990) conducted a study based on Colquhoun's (1971) research into time-of-day differences in mental efficiency. Bodenhausen divided participants into "morning types" and "night types" based on criteria related to circadian variations in autonomic arousal. Participants were then asked to judge the likelihood of guilt of other students who were members of social groups stereotypically associated with an alleged misconduct. Bodenhausen found that "morning types" gave higher ratings of

likelihood of guilt when the judgments were made in the afternoon or evening (when they were at a low level of arousal) and “night types” gave higher ratings in the morning. Bodenhausen concluded that arousal deficits may give rise to deficits in alertness and processing capacity and that perceivers may be more likely to stereotype under these conditions. Whereas the above study by Bodenhausen relates to low levels of arousal, Kim and Baron (1988) showed that participants were more likely to form illusory correlations after being aroused by exercise, and Wann and Branscombe (1995) found that participants who had exercised showed lowered outgroup complexity in comparison with a control group, but only if they considered themselves highly identified with the ingroup. Different arousal levels did not however, lead to differential evaluation of groups. This is interesting as Wann and Branscombe concluded that high arousal may lead to decreased perceived complexity without simultaneous negativity, in opposition to the assumption by Bodenhausen that almost all intergroup interaction and associated emotion is negative.

In the above studies however, arousal was not directly related to mood state. In fact, Wann and Branscombe specifically asked participants to report on their mood following the arousal manipulation and found no differences between groups. Bodenhausen (1993) states that there is evidence to suggest that anger and anxiety are similar in terms of physiological manifestations and both involve heightened arousal with increase in pulse rate, blood pressure and epinephrine secretion. According to Bodenhausen, sadness is not associated with increased arousal and produces little change in the neuroendocrine system. In terms of processing strategy, it would seem that anger and/or fear would therefore be

associated with heuristic processing due to the interruption of cognitive ability because of high levels of arousal. Sadness would not produce this outcome and in fact, Bodenhausen states that sadness has been shown empirically to be associated with systematic processing. Note though, that Clark, Milberg and Erber (1988) have found evidence of increased arousal in sadness. These findings are inconsistent with Bodenhausen's proposition that sadness is not associated with arousal and therefore not likely to result in the use of heuristic processing.

In terms of positive affect, Bodenhausen states that happiness would be associated with high levels of arousal and therefore, with heuristic patterns of processing. The less arousing states of positive affect such as serenity or contentment, however, would not show an association with heuristic processing. Empirically, many studies have shown support for the idea that happiness produces quick, simplistic and sometimes erroneous or inaccurate judgment of social stimuli (Bless, Bohner, Schwarz, & Strack, 1990; Isen & Means, 1983; Isen, Means, Patrick & Nowicki, 1982; Mackie & Worth, 1989; Worth & Mackie, 1987). Further, Clark (1982) found support for the prediction that low-arousal positive affect was not associated with biases in social judgments but that high-arousal positive affect produced these biases. It can be seen from the above review that the interplay of arousal, mood and resultant effects is not a simple one and that, as with the majority of work on sadness in particular, does not have a clear-cut resolution.

Bodenhausen states that the second way in which affect can influence social judgment is through its impact on the motivation of the perceiver: "If different

emotional states are characteristically associated with differing motivation to engage in systematic, effortful thought, then they have another clear route whereby they can affect the propensity to stereotype others.” (1993, p21). Bodenhausen goes on to present an argument largely based on the work of Schwarz (1990) but with some important differences.

Schwarz, as discussed in Chapter 3, contends that mood acts as a source of information about the environment. A positive mood (happiness) tells us that the environment is benign and that systematic processing of information is unnecessary, whereas a negative mood (sadness, anger, fear) tells the perceiver that there is a problem in the environment and that systematic, careful processing is needed to identify and alleviate the problem. This approach predicts more stereotyping when in a happy mood due to lack of careful processing and use of simplistic heuristics (stereotypes) while a sad or angry/fearful mood would produce careful processing that deals with the data at hand and therefore an absence of stereotyping is predicted. Note that this approach necessarily equates stereotyping with erroneous judgment and careful processing with individuation (use of non-categorical data) in line with the cognitive miser models of Fisk and Neuberg, and Brewer.

Bodenhausen, however, disagrees with Schwarz on the point of anger and fearfulness. The use of careful, systematic processing in angry or fearful moods directly contradicts earlier research on arousal. Bodenhausen states that in the case of anger or fear, careful processing may not be the most functional approach and therefore, while sadness may well produce more systematic processing, anger

and/or fear would produce heuristic processing from both an arousal point of view and from a motivational point of view (the motivation being to engage in quick decision making in order to escape or avoid a situation). However, the distinction between incidental and integral affect plays a role here. More analytic strategies of processing may be functional when dealing with integral affect (where the judgment task relates to the source of the mood state) while heuristic strategies would be used in the case of incidental affect where investing effort into a task that is not related to the mood state may be of no functional use. Overall then, negative affect of a sad nature which is low in arousal lends itself to careful systematic processing and negative affect of an angry and/or fearful nature which is high in arousal, lends itself to more heuristic processing unless there is motivation to engage in a more substantive strategy.

Positive emotions are seen by Schwarz (1990) to signal a benign environment and Bodenhausen suggests that both in terms of the arousal inducing properties of positive emotion (happiness = high arousal) and the signalling to the perceiver of a benign environment, happiness will always produce heuristic processing. In line with this train of thought happy people will necessarily stereotype more, as will angry and fearful people, whereas sad people will not. Bodenhausen presents a series of empirical studies designed to test these predictions. Note that although Bodenhausen's general argument is applied to both integral and incidental affect, the studies testing his predictions all use incidental affect as the manipulated variable. We will deal with this work in detail now.

Three experiments were conducted to investigate the effects of anger and sadness (Bodenhausen, Sheppard & Kramer, 1994). Mood was induced for all three experiments by having the participants vividly recall and describe in writing an event in their life which had made them feel extremely angry or sad, depending on condition. This was put to participants as an experiment in its own right and they were then asked if they would like to participate in a further experiment. This “further experiment” was in all cases the stereotyping manipulation.

In the first of these, participants were asked to rate the likelihood of guilt of a fellow student accused of a transgression. The transgressions chosen corresponded to stereotypical behaviour (pre-tested) of particular social groups. There were two sets of stimuli, the first of which described a target (named either Juan Garcia or John Gardner) who was accused of an act of aggression (stereotypically linked to persons of Spanish American descent). The second set described a target accused of cheating and who was also said to be a well-known track-and-field athlete (stereotypically linked to cheating) for half the participants with this stimulus set. Before reading the stimulus material, participants filled out demographic and self-report measures wherein a manipulation check for mood was embedded. The stimulus material itself consisted of a few sentences of evidence that were mixed in terms of implications of guilt. Participants were then asked to rate how likely they thought it was that the target was guilty.

The results showed comparable effects regardless of transgression. Angry participants responded with higher ratings of likely guilt for stereotyped targets, that is they saw Juan Garcia as being more likely to have committed an act of

aggression than John Gardner and a track-and-field athlete as being more likely to have committed an act of cheating than a non-descript student. Neutral mood and sad mood participants did not show this pattern.

For our purposes, though, it must be noted that there were some problems with the design. The authors state that the mood manipulation check did not actually use the word “angry” but instead substituted the word “irritated” as angry had been found to have floor effects in self-ratings in pilot studies. It must be asked therefore, whether the authors really manipulated anger as an emotion. Further, the scale on which these self-ratings were made ranged from 0 (not at all) to 7 (extremely). The mean irritation score in the angry condition was 1.98, which was only just significantly different to the neutral mood condition ($p < .05$) where the mean score was 1.33. In real terms on a scale of 1 to 7, a mean score of 1.98 would not seem to reflect a “true” manipulation of irritation let alone anger. It seems hard to accept the authors’ assertion that they successfully manipulated anger and could therefore relate the differences in stereotyping scores to the experience of this emotion.

Another interesting point is that neutral mood participants did not show any effects in terms of the stereotyped targets. Both stereotyped and non-stereotyped target were rated similarly for both neutral and sad participants. It would be expected that a stereotype shown by pilot work to be associated with a transgression used in the stimulus materials would be accessible to participants in a neutral mood. It is likely that participants in the pilot studies were in a neutral mood when responding to the stereotyping material although it is commonly held

that “normal” mood is slightly raised (positive) so perhaps the effect of manipulating neutrality in participants is actually similar to inducing a slightly negative mood. In this study, however, neutral mood participants did differ from sad mood participants on the sad mood manipulation check. There is therefore, the question of why only the “angry” mood participants (those participants who were slightly irritated) responded differently to the stereotyped targets. The possibility that participants were responding to a more complex process than simply their mood in the angry mood condition will be explored in Chapter 5.

In the second of these experiments on anger and sadness, participants (students from Michigan State University) were asked to rate their level of agreement with an essay that argued in favour of raising the legal driving age from 16 to 18. The essay was purported to have come from pre-tested groups that were either high expertise (transportation policy experts from Princeton University) or low expertise (students at Sinclair Community College in New Jersey) As mentioned above, the mood manipulation was the same as the previous study. The authors expected that angry participants would be more likely to agree with the high expertise group than sad participants due to their use of simple heuristic clues to form a judgment.

Results showed that while there were no differences in ratings for sad and neutral mood participants, angry participants displayed significantly higher ratings of agreement with the high expertise group than with the low expertise group. However, careful examination of the results may suggest some problems. Firstly, the authors fail to report results of manipulation checks and given the problems in

the previous experiment there may be some doubt as to whether anger was truly manipulated. Secondly, participants rated their agreement on a scale of 0 (strongly disagree) to 10 (strongly agree). Means for participants in the angry conditions were 2 (low expertise) and 4.67 (high expertise). To suggest (as the authors do) that angry participants were *agreeing* more with the high expertise source is somewhat misleading given that in both conditions levels of agreement were actually in the direction of *disagreement*. It would be just as plausible to argue that angry participants disagreed more with the low expertise source. Given that the authors predict that angry participants will agree with the high expertise source due to use of heuristic cues it is difficult to interpret more disagreement with a low expertise source in the same way.

The authors also state that neutral mood participants showed a non-significant trend to agree more with the high expertise source. The simple effects of affect were not reported but it would have been interesting to see if there were significant differences between angry and neutral participants on ratings in the high and low expertise conditions. Looking at the means (angry/low, 2.00; neutral/low, 2.36; angry/high, 4.67; neutral/high, 3.79) the post hoc prediction may well be that there are no differences between angry and neutral participants. Again, these results do not appear to be strong enough to make the conclusion that angry participants are using heuristic processing in this judgment. Again, an alternative explanation for these results will be explored in Chapter 5.

The fact that sad participants in the above experiment had actually showed a non-significant trend towards more agreement with the low expertise source, intrigued

the authors and a third experiment was designed to investigate this phenomenon. Again, agreement with an essay was the major dependent variable and again mood was manipulated through the recall and write procedure. The difference for this particular study was the source variable. Instead of the essay being either from a high or low expertise source, it was purported to be from one of two groups pre-tested for trustworthiness for the topic. The “student government league” was considered to be trustworthy as opposed to the “student vegetarian league” who were considered to be untrustworthy on the topic of banning meat products from resident dining halls at breakfast and lunch. Again, participants tended to disagree rather than agree with the idea of banning meat and sad participants tended to reverse the pattern for the neutral and angry mood participants. In this case, however, the effect rested with more disagreement with the high trustworthy source rather than less disagreement with the low trustworthy source. Angry participants showed a significant difference in ratings for high and low trustworthiness and the angry and neutral ratings appear to be non-significantly different.

This series of studies, as outlined above, reveals the problems of research in this area. Manipulating negative mood conditions in the laboratory is an imprecise exercise, especially in the area of anger. When predictions are made based on the arousing properties of anger and the required emotion cannot be adequately manipulated then doubts must occur about the theoretical utility of the data. Notwithstanding these problems, however, significant differences between experimental conditions were found and these need to be analysed. As stated above, although it is hard to reconcile the available data with the authors’ position

advocating reliance on heuristic cues in angry moods, an alternative explanation must then be proffered. This alternative will be outlined in Chapter 5.

A second series of experiments (Bodenhausen, Kramer & Susser, 1994) looked at happiness and stereotypic thinking. All four experiments used the same stimuli as in the first of the experiments on anger and sadness i.e.: information about a fellow student's transgression when that student was stereotypically associated with the transgression via membership of a particular social group or when the student was not so associated. The dependent variable was again, ratings of likelihood of guilt. The experiments focussed on the particular processes by which happiness may influence stereotyping and therefore happiness was manipulated in four different ways.

The first experiment manipulated happiness using the recall and write procedure that had been used in the experiments on anger and sadness. This was to establish that happiness did actually result in the use of stereotypes. Results showed that happy participants gave higher ratings of likelihood of guilt when cued by a stereotypic label (eg: the name Juan Garcia when the transgression was an act of aggression) than when not cued (the name given was John Gardner). Neutral participants rated both targets similarly. Again, however if the means are examined more closely it can be seen that it may well be the happy mood/no stereotype condition that is driving the interaction. The authors state that the overall interaction was marginally significant ($p < .09$). They then present the simple effects of stereotype presentation for each level of the mood variable. They do not, however, present the simple effects of mood across each level of

stereotype presentation. The means in question are (on a scale of 1 to 10), 7.04 (happy/stereotype), 5.66 (happy/no stereotype), 6.31 (neutral/stereotype) and 6.26 (neutral/no stereotype). As discussed in the previous section on anger and sadness, it is quite likely that there are no differences between happy and sad participants across three of the conditions and also likely that there is no difference between neutral and happy participants in the no stereotype condition. If this is the case, then these results could be interpreted as happy participants making lower ratings of guilt in the no stereotype condition rather than making higher ratings in the stereotype condition. If this is the case then the difference in responses cannot be attributed to use of the stereotype in the stereotype condition.

The authors did conclude that happiness led to reliance on heuristic cues however, and so set forth to explore the processes involved. In particular Bodenhausen and colleagues wanted to separate two ways in which happiness had previously been seen to influence cognitive busyness. Firstly, in line with arguments by Bower and Isen outlined in the previous chapter, happiness may cause cognitive overload because of the volume of material associated with happiness in memory. When in a happy mood, perceivers may be inundated with associated material from memory and this results in limiting processing resources. On the other hand, it may be that happiness limits cognitive ability purely by its arousal inducing properties without cognitive content.

In order to test the effects of happiness as pure emotion without the cognitive content, a facial expression manipulation was used. As discussed above, Schiff, et al., (1992) and Strack, Martin and Stepper (1988) have used facial expression to

manipulate happiness by having participants contract the appropriate facial muscles used in smiling without explicitly asking them to smile. Participants in the neutral mood condition are asked to lightly contract their non-dominant fist. In Bodenhausen et al. (1994), happy smile participants rated themselves as being significantly happier than neutral fist participants, and rated the target as significantly more likely to be guilty when cued with the stereotypic label. The authors conclude that these results show support for the contention that it is not *cognitive distraction* that fosters stereotyping in happy people.

The arousal inducing properties of happiness were tested using music to manipulate mood. Participants were induced to feel either happy and calm, or happy and excited and both sets of participants showed evidence of stereotype activation when cued. The authors conclude that the arousal properties of happiness do not in themselves create the tendency for happy people to stereotype more and that it must be some other factor that leads to happy people using heuristic processing.

In a fourth and final experiment in this series, participants were again asked to recall and write about an experience in order to manipulate mood. They were then presented with the same stereotyping stimuli as used in the previous three studies, however in this study, half the participants were told that they would be accountable for their judgments and that they would have to justify the decisions that they made. The results of this particular study are quite mixed, including the fact that mean ratings of happiness for both neutral and happy condition participants were above 6 on a 7-point scale. Although ratings were significantly

different from each other, the “true” emotional state of the participants is questionable, especially for those in the neutral condition.

Looking at the results of stereotype activation, it can also be seen that neutral mood participants in the accountable condition have the same mean guilt rating as happy mood participants in the not accountable condition ($M=6.94$, in both conditions). Given that these ratings are also not significantly different from neutral mood participants in the no stereotype/not accountable condition or the happy mood participants in the no stereotype/accountable condition, it is difficult to conclude that this study successfully manipulated any of its independent variables. The authors do note that there is a significant difference between happy participants in the accountable and not accountable conditions when the stereotype is activated in that when happy participants were made accountable they stereotyped less than when they were not. Bodenhausen et al, conclude that even happy perceivers are able to control their use of heuristics if the motivation for accuracy comes into play.

Overall, Bodenhausen and colleagues present an argument that eliminates both the arousal inducing properties of happiness and the cognitive overload properties of happiness as the cause of social stereotyping in happy people. Instead, the authors conclude that an “effort conservation hypothesis” is compatible with the results. Happy perceivers will not expend the cognitive energy to think in systematic ways about outgroup targets unless there is some motivational variable that mediates the use of heuristic strategies. The authors go back to the ideas of integral and incidental affect in order to reconcile the inconsistency between their

research and research that has "...touted the importance of a positive affective climate for the development of favourable intergroup relations..." (Bodenhausen et al., 1994, p630). They state that happy perceivers will be willing to expend cognitive energy if their happiness is integral to the intergroup situation at hand in order to bring about a positive outcome. However, happiness that is incidental to the intergroup context will influence perceivers' choice of processing strategy as "...thinking superficially about outgroups incurs no appreciable, immediate costs, whereas thinking more systematically seems to hold little promise of appreciable immediate benefits." (p630).

As noted earlier, the above studies manipulated incidental affect only although the general argument is applied to both types of affect. More recently, Bodenhausen and Moreno (2000) state that there is a "relative dearth" of research into the impact of group-based feelings on perception and that "much more remains to be learned about the effects of integral affect on intergroup cognition and behavior." (p298). The authors suggest that the effects of incidental affect may be mirrored in integral affect.

It can be seen clearly from the studies outlined above that the idea of stereotypes as judgmental heuristics and energy saving devices is the central theme of Bodenhausen's approach. It is logical, given the conception of stereotypes as heuristics, that stereotyping will be more likely under happy mood conditions if happy mood engenders a lack of motivation to process information in a systematic way. In a more recent paper however, Bodenhausen reviews the work

done by Bless and colleagues (see below) and states that "...claims that happy people are generally unable or unwilling to engage in systematic thinking appear to be inaccurate." (Bodenhausen, Mussweiler, Gabriel, & Moreno, 2001, p335). The authors state that happy people are capable of engaging in more detail-oriented processing if the need arises although they are often "content to rely on efficient, simplified bases for judgment (such as stereotypes)". In this paper, Bodenhausen et al also state that the *lack* of stereotyping in sad people may be due to repressing of group information and engagement of stereotype correction and that this is because sad people are "careful, systematic thinkers" (p337). It is still apparent from these comments that stereotyping for Bodenhausen and colleagues is equated with simplistic, surface judgment and stereotype correction or repression is due to systematic thinking.

In the next section of this chapter, we will examine the work of Bless and colleagues, work that attempts to account for use of stereotypes in happy mood without necessarily attributing that use to reduced processing. While still considering stereotypes as heuristics or short cuts, Bless argues that people stereotype when they rely on what he calls "general knowledge structures" (which include schemas, stereotypes and other heuristics) without the assumption of lack of processing. We will turn to that research now.

4.4 Mood and reliance on general knowledge structures

Bless extended the "mood-as-information" approach of Schwarz, Clore and colleagues by proposing a "mood-and-general-knowledge-structures" approach

(Bless, 2001; Bless, Clore, Schwarz, Golisano, Rabe, & Wölk, 1996; Bless, Schwarz & Kimmelmeier, 1996; Bless, Schwarz & Wieland, 1996). The approach closely follows that of the previous research in that mood is seen to provide information about the psychological environment to the perceiver. Positive mood signals that all is well and that there is no need to examine the situation in detail. Negative mood signals that there are problems in the environment that need to be dealt with and therefore a detailed examination is required. In the “mood-as-information” approach, these two alternatives align with heuristic and systematic processing respectively, with heuristic processing seen as a cognitive shortcut that uses up fewer information processing resources.

Although Bless and colleagues start from a “mood-as-information” approach, they attempt to reconcile research showing that happy people are more creative and better problem solvers than sad and neutral people (Isen, 1987; Martin et al., 1993; Worth & Mackie, 1987; Bless, Bohner, Schwarz & Strack, 1990) with the idea that happiness lessens processing ability. Bless states that happiness may result in heuristic processing but that heuristic processing does not have to be equated with reduced processing. The use of general knowledge structures such as heuristics, schemas, and stereotypes may simply be the most useful and functional mechanism for the situation at hand (Bless, Clore et al., 1996). Further, reliance on general knowledge structures may allow the perceiver to go “beyond the information given” in line with Bruner (1957). Perceivers may use general knowledge to draw inferences and generate new concepts. This may explain the apparent paradox that happy people rely on heuristics but also show signs of creative problem solving.

Bless, Clore et al. (1996) tested these ideas and found results that supported the contention that happiness leads to reliance on general knowledge structures, without the assumed reduction in processing, with happy participants outperforming sad and neutral mood participants on a secondary task while listening to a story. Bless, Schwarz, and Wieland (1996; see also Bless, Schwarz & Kemmelmeier, 1996) went on to apply these findings directly to the area of stereotyping. The authors wanted to test the idea that the use of stereotypes under happy mood was not due to limited processing capacity or motivation, but rather resulted from perceivers feeling comfortable to rely on their pre-existing knowledge structures about the target's group membership. The authors believe that the use of individuating information is the key to distinguishing between these alternatives.

If happy perceivers are using stereotypes due to a lack of cognitive ability or motivation to process the information at hand in a systematic and detailed manner, then individuating information should be ignored and any judgment should be based primarily on the implications of the stereotype. If, however, happy perceivers are processing information in just the same manner as their neutral mood and sad mood counterparts, then two alternative judgments can be made. If individuating information is *consistent* with the stereotype then a stereotypic judgment will result. This is because happy perceivers are processing individuating information *in terms of* the stereotype. If, however, the individuating information is *inconsistent*, then no stereotypic judgment will be

made. In fact, Bless and colleagues state that in this case, the judgment should be contrasted to the stereotype.

In a series of four studies, these ideas were tested and the relationship between category information, individuating information and mood was investigated. In the first experiment, participants were provided with categorical and individuating information about the stimulus person. This information was of differing valence and the implication of the information was either consistent or inconsistent with the category. The participants also underwent a mood induction procedure under the guise of an unrelated first study. Participants listened to a tape recording which described the target person as either a Greenpeace representative or the manager of a large chemical company, and provided eight behaviour descriptions that were either predominantly positive (“avoids fast food outlets, “uses public transport to get to work”) or predominantly negative (“often goes to fast food outlets”, “drives a fancy sports car to work”). Participants were then asked to evaluate the target along four dimensions related to the information given: career mindedness, consumer orientation, ecological responsibility, and likeability. The ratings on these dimensions were then computed into an overall evaluation score by subtracting the ratings on the two negative dimensions (career mindedness and consumer orientation) from the ratings on the two positive dimensions (ecological responsibility and likeability) and dividing by four. Participants were also asked to recall as much information as possible.

Results showed that happy participants were more likely to take categorical information into account when evaluating the target but this influence was

dependent on the type of individuating information supplied. When the individuating information was positive, and the target was a member of a positive category (Greenpeace), then that target was evaluated more positively than when the target was a member of the negatively evaluated category. When the individuating information was negative, however, the target person was evaluated most negatively when they were seen to be a member of the positive category. In this way, happy participants used both category and individuating information to evaluate the target, accounting for the fact that information was inconsistent or consistent with the stereotype. Sad mood participants on the other hand, did not appear to use category information at all, making negative evaluations when the individuating information was negative and positive evaluations when it was positive regardless of how this information “matched” the category membership involved. Neutral mood participants used both category and individuating information but in an additive rather than interactive way, with more positive evaluations when either individuating or categorical information was positive and more negative evaluations when the information was negative. No significant differences were found for the recall information.

It is important to note however, that in this study, positive individuating information was also *consistent* with the positive stereotype of Greenpeace member. Negative individuating information was *inconsistent* with Greenpeace membership and *consistent* with chemical company manager. For the student population that was used as participants, Greenpeace member would also be *ingroup* when compared to chemical company manager. Therefore, ratings could be seen to reflect the amount of fit that the individuating information had with the

two categories. The results could be interpreted as happy participants having an increased ability to detect high fit in the condition where individuating information matched category information, and an increased ability to detect low fit when individuating information did not match category information especially in the case of ingroup ratings. This interpretation is in line with an alternative approach to stereotyping and mood effects that will be outlined in detail in the next chapter. It is also worth noting that no significant differences were found in the recall data, a result that would support the idea that *all* participants were processing data in the same way. For all mood conditions, 90% or more of participants recalled the category label although happy participants tended to mention the label earlier in their recollections than sad or neutral mood participants. The authors state that this suggests that the category label was rendered more accessible for happy mood participants, a result that supports the idea that happy participants experienced heightened salience for the group context. Again, this interpretation is discussed more fully in Chapter 5.

The authors found it hard to explain the finding that happy participants used categorical information to guide encoding of individual information but only when the category was positive. They therefore designed a second experiment to test the idea that negative behaviours are more diagnostic for morality related judgments than positive behaviours. Were there different levels of inconsistency in the materials used? Results showed that participants rated the combination of a positive category label presented with negative individuating information as more inconsistent than a positive category label with positive individuating information. This was not true for the negative category label where there was no

difference in rated consistency for positive or negative individuating information. Bless and colleagues state that this supports the idea that negative behaviours are more diagnostic for morality related judgments than are positive behaviours. Again, however, these results could simply reflect the level of fit that the individuating information had to the category label and the interpretation of the group membership for each target. Could it be that participants may have seen a job as a Greenpeace representative to be reflecting a lifestyle-oriented career choice, therefore expectations of highly consistent individual behaviour would be the norm? Is it more possible that a manager of a chemical company would engage in environmentally responsible behaviour “at home” than it is that a Greenpeace representative would engage in non-environmentally responsible behaviour? It may be that the interaction between category label, expectations and behaviour are more complex than can be explained by the diagnostic ability of negative behaviours.

In the third experiment in the series, Bless and colleagues tested their ideas about the differential use of categorical information by happy and sad participants. They hypothesised that happy participants concentrate on categorical information and the relationship between the category and the individuating information. If this is the case then giving participants explicit instructions to focus on this relationship when processing the information should result in the same outcomes as inducing a happy mood. Likewise, instructing participants to focus on the individuating information alone should result in outcomes similar to inducing a sad mood. In this experiment, therefore, no mood induction procedures were used; participants were simply instructed to focus on the relationship between the

categorical data and the individuating information or to focus on the individuating information only. As predicted, results showed that these instructions were functionally equivalent to inducing the respective moods.

Of course, it should be noted that these instructions are also functionally equivalent to heightening the salience of the intergroup context for happy participants. Participants are being asked to focus specifically on the categorical data (category label) and factor this into the individuating information. As stated earlier, when the individuating information is positive it is consistent with the positive group label of Greenpeace, resulting in maximum salience for this condition. Similarly when the category label is negative and the individuating information is negative (consistent with chemical company manager), there is also increased fit and heightened salience. If results then mirror results for happy and sad mood inductions, the question must be raised – why does it seem that happy mood participants are particularly able to detect fit in the data and respond to the group context, especially when the data is positive? As mentioned above, the student population used in this study would consider Greenpeace to be an ingroup (in fact, the groups were chosen specifically with their positive and negative connotations for the population of participants in mind). In Chapter 5 we will examine the idea that participants are responding to a positive ingroup membership in response to the data set and that they therefore detect the intergroup context within which they are making judgments.

The final experiment in this series examined the role of timing the presentation of the categorical information. Bless et al., state that if happy participants use the

categorical information to encode the individuating information then timing of exposure to the category label is important. Participants must have the category label first before they can relate the individuating information to it. The authors hypothesise that giving the categorical information after the individuating behaviours would reduce its impact. The same stimulus materials were used as in Experiment 1, however the placement of the categorical information was changed so that this information was presented three times in total, either at the beginning of the recording or at the end of it. Results supported the authors' contentions. When the category information was presented first, results were identical to the results of Experiment 1, however when this information was presented at the end, there were no interaction effects for either category membership or individuating information with mood. All participants rated the target as more positive when positive behaviours were presented and when positive category membership was provided, and more negatively when negative behaviours or negative category membership was presented. Bless et al., state that these results support the idea that happy mood participants need to have the categorical information first, in order to process the individuating information in relation to it.

Again, these results may have an alternative explanation in terms of the issue of category salience and fit. Presentation of the categorical information at the end of the tape may have resulted in lowered salience of the category, especially when the label did not fit with the behaviours already presented. In the absence of category fit, the label would have less impact, whereas in the presence of category fit, salience would be high, resulting in the main effects found. When the category information is presented first, then accessibility would be high,

rendering the category more salient. When the behavioural information follows it can be processed in terms of the category with the resulting interaction as found by Bless et al., in the first experiment. Again, the issue of why happy participants in particular may be more able to detect the intergroup context arises and can be explained in terms of the match between positive ingroup identity and mood. This will be explored further in the next chapter.

4.5 Overview

The aim of this chapter was to review literature focussed specifically on the effects of mood on stereotyping. It was shown that this literature was the result of the integration of two areas of research, that investigating stereotyping and group processes within the cognitive miser tradition and that investigating the influence of affect on cognition and social judgment. It can be seen from the review above that the conceptualisation of stereotypes as heuristic, cognitive labour saving devices is a strong theme in the area of mood and stereotyping. It can also be seen that almost all research in this area is based on the idea that mood in some way influences the way in which we process information, through its mediating effect on processing strategy choice or at the least, the motivation to avoid cognitive effort. Happy people, for reasons of cognitive overload due to related material, simple affect priming principles, the motivation to avoid effortful processing, or the decision to rely on heuristics and other “general knowledge structures”, are more likely to stereotype than sad people. Sadness engenders a more substantial processing style that negates the effects of stereotype activation

and use (cf Esses & Zanna, 1995). Overall there are some robust findings that point to the conclusion that happy people stereotype and sad people do not.

One of the most important issues however, is the almost total neglect of the true *social* psychological context within which stereotypes are formed, maintained and applied. By taking the cognitive analysis to its extreme, researchers investigating both stereotyping and group processes, and affect and social cognition, have failed to acknowledge the social reality of group membership both for the target and the perceiver. Due to this failure, the nature of affect's influence on social information processing has been reduced almost solely to its effects on individual processing strategies. What is missing in this analysis is the conceptualisation of both stereotyping and affect as meaningful processes in themselves – meaningful beyond the simple, almost mechanistic view of the differentiation of heuristic verses substantive processing – that stem from our experience as social beings, striving for understanding and coherence in our interactions with the social world.

In the following chapter, we present an alternative viewpoint that allows for an interpretation of stereotyping and group processes as being meaningful and coherent outcomes of categorisation processes, that focuses on the *creation* of meaning and the ability to deal with both too much information and not enough. Categorisation is more than a simple information reduction mechanism and the categorisation of people into social groups is more than just a shortcut way of dealing with thousands of pieces of individuation information. It will be seen then, that stereotyping can be conceptualised as more than a process of cognitive load reduction and therefore mood's influence on it will be seen to stem from

more complex processes than have previously been the focus of affect and stereotyping research.

CHAPTER 5

Categorization, social identity and a reanalysis of the effects of mood on stereotyping

5.1 Introduction

In the last three chapters we have examined the background of research in both stereotyping and affect. We have then focused on the area of work that specifically draws these two fields together to investigate the role of mood in stereotyping. What we have discovered is that one process in particular ties these two areas together. One process is seen as pivotal to the study of stereotyping and, therefore to the investigation of the role of mood in both stereotyping and intergroup behaviour. That process is categorization. Categorization, that is, as an information reduction, cognitive tool that we use to simplify and cope with the overwhelming amount of information with which we have to deal in perceiving our social world. Stereotyping is seen as the unfortunate byproduct of this process and mood is seen as mediating this via its effects on our information processing capacity or motivation. When we either cannot, will not or need not expend cognitive energy due to the particular mood state we are in, we will use categorization to simplify the task. That is, we will

stereotype. As Wilder (1986) states: "...categorization, per se, propels the individual down the road to bias" (p292).

Is categorization simply an information reduction mechanism, brought out when cognitive capacity or lack of motivation drives us to being unwilling or unable to attend to the information at hand? Is categorization heuristic, top down, unsystematic processing that leads inevitably to bias, discrimination, stereotyping and prejudice? Our answer is no. There is another way of construing categorization, and there is, therefore, another way of construing the role of mood in categorization, stereotyping and group behaviour.

Stemming from the work of Bruner, Medin and others, categorization has been re-construed as a process leading to the *elaboration of meaning*, the identification of things, the knowledge of what things are (Oakes, 2001). McGarty (1999) defines categorization as "the process of understanding what some thing is by knowing what other things it is equivalent to and what other things it is different from" (p1). Categorization allows us to structure our world in a way that leads to information elaboration, not information reduction. Further, this function of categorization extends to the self and our social world.

This alternative conceptualization of the role of categorization in perception, in particular in perception of the social self, allows us to re-conceptualize the process of stereotyping and the role of mood within that process. We can re-examine the work

that was laid out in the previous chapter with a new and more truly *social* psychological approach that “lays the cognitive miser metaphor to rest” (Turner, 1999, p27). The link between self-categorization in terms of our social group memberships (the categorization of self in terms of our social identity), the evaluative meaning of those memberships, and our mood as an important self-referent within the social context, will be made clear. We will step forward with a new interpretation, and clearer understanding, of the relationship between mood and group perception.

First, we will examine categorization in terms of the New Look research of Bruner (1957) and the extensive work of Medin and colleagues and Oakes and colleagues, where we will see that categorization is not simply an information reduction mechanism but a search for coherence and meaning in social perception. We will then revisit stereotyping in light of this alternative approach to categorization and take into account the truly social nature of group processes within the framework of Self-Categorization Theory and Social Identity Theory. Finally, we will apply this viewpoint to the work on stereotyping and affect, focusing on the way in which this new approach may broaden our understanding of the processes involved in the interplay of affect, cognition and social perception. We will argue that stereotyping is not the result of limited information processing capacity and/or the motivation to avoid cognitive effort and, therefore, that the effect of mood on stereotyping is not via a mediating effect on information strategy choice. An alternative argument will be presented that states that stereotyping is the product of self-categorization at the

social level of identity and that social identity is the cause of all group based behaviour. Further, we will argue that mood must affect stereotyping via a mediating effect on this process of self-categorization as a group member. This will lay the theoretical foundation for the program of research that this thesis presents. Drawing from that, we will then outline the research program and present our general hypothesis.

5.2 The New Look research of Bruner and a re-conceptualization of categorization

From the earliest work of Lippmann and Allport, categorization has been seen as necessary for the reduction of information. Perceptually, if we had to contend with every piece of separate information, every single stimulus that we encounter, then our minds would be overwhelmed with the job of dealing with this incoming nightmare. Obviously, categorization helps us to simplify perceptual stimuli because we do not have the cognitive resources to cope with all that we sense. But is this its *primary* purpose? As Oakes et al. (1994) point out, if we had unlimited cognitive resources would this mean that “we would *not* categorize and be better for it”? It does not seem likely given what we know about categorization from the point of view of the “New Look” movement of the mid-twentieth century, and later work of researchers such as Rosch and Medin. As we examine the important work of Bruner, Rosch, Medin and others we will see that information reduction is only one of the functions of categorization and, in fact, may be its least important.

Bruner (1957, p123) states “perception involves an act of categorization”, in fact Bruner goes on to state “...all perceptual experience is *necessarily* the end product of a categorization process.” (p124, italics mine). Why necessarily? Firstly, because only when stimuli are placed in a class with already known defining properties, can stimuli be given identity, become percepts rather than raw stimulus information. To perceive we must be able to identify, to give meaning to stimuli, to understand what it is that we are perceiving. Categorization creates meaning by the placement of stimuli into a “network of hypothetical inference” concerning “observable properties, its effects and so on” (Bruner, 1957, p126).

Further, categorization enables the perceiver to “go beyond” the pure stimulus information in order to predict future behaviour, and this behaviour is correlated highly with the actual external world. Bruner uses the example of the perception of an apple. Not only do we see the apple, we categorize it as such, and this action gives us a view into the properties of the apple and allows us to predict possible future interaction with the apple (that it will be juicy, sweet and edible). If we were unable to categorize in this way, each and every sensory experience would be unique and unrelated, and predictive behaviour would be impossible. If predictive behaviour were impossible, we would never be in control of our perceptual or physical world, unable to use prior knowledge to infer the properties of objects or people, and therefore unable to interact successfully with either. Thus, categorization is also necessary because non-categorized experience would be incommunicable (Oakes & Turner, 1990) “locked in the silence of private experience” (Bruner, 1957, p125).

In allowing us to “go beyond” sensory information, Bruner sees the categorization process not as an information reduction mechanism, but as a means to enrich and expand perceptual experience (Oakes & Turner, 1990). This approach is also echoed by Medin (1988) who states “...categorization, including social categorization, is primarily to cope with the problem of too little rather than too much information” (p122). Medin (like Bruner) emphasizes the ability of categorization to generate expectations and notes that the same category can have different implications according to context. The principal purpose of categorization is therefore, not information reduction, it is information elaboration.

Given that categorization has the two purposes of information elaboration for meaning, and simplification and organization of stimuli, how does the process work to enable optimal perception? Oakes and Turner (1990) propose a third function of categorization in its ability to “*selectively* draw our attention to aspects of real, material structure” (p 120, emphasis added). After Rosch (1978) and Neisser (1987), Oakes and Turner argue that categories are not arbitrary, subjective constructions but represent real and relevant invariances in the physical world. Bruner (1957, p127) also notes that categories are not single, unrelated entities but exist in a system of “categories in relationship” that “fit” the world in which a perceiver lives. Fit, as one determinant of category activation, implies actual invariance in stimulus input, state Oakes and Turner (1990). These invariances are natural discontinuities whereby certain characteristics co-occur in nature such as wings and feathers rather than wings

and fur, an invariance that reflects and helps to define the category “bird” (Rosch, 1978).

Oakes and Turner (1990) discuss the importance of the origins and nature of category systems and note the emphasis of Murphy and Medin (1985) and Neisser (1987) on both ecological and intellectual factors in category cohesiveness (Medin & Wattenmaker, 1987). Rosch’s understanding of categories as reflecting natural invariances illustrates the first of these factors, and Neisser also states the importance of “the ecological distribution and characteristics of the to-be-categorized domain itself” (1987, p3; cited in Oakes & Turner, 1990). The second factor involved in the definition of what makes one category as distinct from another, is the intellectual one: that perceivers hold abstract, idealized theories about the world and the way it works (Brown & Turner, 2000; Oakes et al., 1994) and that these theories mediate between reality and perceptual categories.

Medin and Wattenmaker (1987) discuss similarity-based models of category cohesiveness and state that similarity alone does not make a good basis on which to include a particular stimulus into a particular category. Similarity on *a particular dimension*, a dimension that is meaningful to the categorization decision as it pertains to a particular context, depends on background theories and knowledge and is the only way in which a meaningful category identity can be shared by stimuli. An experiment using children’s drawing illustrates this point. Participants were told that the drawings were by children with emotional disturbance as opposed to mentally

healthy children, or that the drawings were by farm versus city children or any of a number of different categorizations. The background theories and knowledge of the participants, in regard to the particular set of categories that they had been given, affected their interpretations of the drawings and the rule induction that they used to account for the categories. In some situations the same feature of the drawings would be used differently as validation for a particular categorization. For example, smiling faces were seen to indicate that the drawings were by mentally healthy children when participants were judging according to a mentally healthy/emotionally disturbed categorization. However, the same smiles were seen by other participants to indicate a lack of creativity when the categorization for judgment was creative/noncreative. Differential background knowledge, cued by the different categories invoked, affected the way in which the drawings were judged. The particular attributes that were seen to be important or defining for the judgment changed when the categories changed. Of course, the range and form of these background theories is constrained by ecological reality (Medin & Wattenmaker, 1987; Oakes et al., 1994) and categorization can be seen to be an interaction of both the ecological and intellectual factors.

Of course, this interaction of the physical realities of the world and our background theories of the way in which categories behave and relate to each other enables perception to be selective. There are many, many bases for categorization, many different ways in which similarity and difference may be manifested in a particular category selection. As shown above, the same information may become meaningful

in completely different ways depending on the defining attributes of the category decision. Oakes and Turner (1990) state that it is this ability to selectively attend to particular categories out of many possibilities that is the critical mechanism of perception.

The authors give the example of the perception of traffic. On the one hand, this perceptual scene could be categorized and experienced simply as “traffic”. However, it can also be experienced as “cars and trucks”, or as “Hondas, Fords, BMWs etc”. The stimulus information itself remains unchanged, but the “subjective experience of similarity and difference” does alter. As “traffic” all cars, trucks, buses etc are seen as similar. As “cars and trucks”, cars are seen as different to trucks but similar to each other. As “Hondas, Fords, BMWs etc” each car is seen as potentially different to other cars, only similar to those cars of the same badge name. The analogy can easily be taken further in either direction by including “traffic” in the category of “transport” which would also then include planes, trains and boats, or by recategorizing “Hondas” according to model or year.

What is important here is that perceiving a stimulus set in terms of one particular categorization does not change the inherent properties of the stimuli, only the perceived level of similarity and difference. Further, categorizing at one level of inclusiveness (Rosch, 1978), does not mean that the perceiver is unaware of differences and similarities at another level, only that those differences and similarities are *irrelevant* to the current situation. Adaptive, optimal perception

involves not simply categorization, but selective categorization that takes into account the relevant aspects of similarity and difference in terms of the current requirements of the perceiver. When trying to cross a busy road the difference between makes, models and years of cars has absolutely no bearing on whether or not they are in a position to run you over. However, when trying to buy a good second hand vehicle, these differences are pivotal to the decision. As Oakes et al. (1994) state:

“Information is what the perceiver needs to know at any given moment in order to construct a meaningful representation of reality, and to achieve their goals. We would argue that categorization works to *maximize* information in this sense...Categorization itself elaborates rather than reduces the information available in a stimulus. It is the crucial process that brings together our general understanding of and theories about the world on the one hand, and the material reality in which we live on the other. Without it perception would be meaningless, it would not be human.” (p113)

5.3 Applying the New Look to social categorization

Given that all perception involves categorization, we must then accept that social perception, person perception, also involves categorization. This is not news in terms of the models of person perception that were dealt with in Chapter 2. Both Fiske and Neuberg and Brewer place the act of categorization as the starting point for person perception and impression formation. The difference between the approach outlined here, and that of the above authors is that Fiske and Neuberg, and Brewer see

categorization as an act of information reduction and that without suitable effort being applied, categorization will lead to a less informative, biased impression in comparison to individuation. Further, categorization applies only to group impressions not individual ones. In this light, individuation is not seen as a form of categorization but as a category free process of bottom-up, data driven “reality”. In individuation we manage to find the “real” person, not just a member of a category. It has been argued elsewhere, however, that the process of categorization is in use in both individuation and stereotypical impressions of group members (Reynolds, 1997). All perception is categorization, the level at which we categorize depends on the relevant goals of the perceiver in interaction with the specific context of the time. Seeing people as group members at one time and the same people as individuals at another time is not a matter of categorizing or not categorizing, but of judgments of similarity and difference in terms of goals and context in the same manner as described above when the target of categorization was cars, not people.

These ideas were tested directly by Reynolds (1997; see also Reynolds & Oakes 1999, 2000), in a program of four studies that manipulated comparative context, interdependence, and accuracy goals. In order to test predictions from both the social cognitive “resources” approach and self-categorization theory (see below), Reynolds had participants form impressions of a target in either an interpersonal or intergroup context. She manipulated interdependence and accuracy goals as Fiske and Neuberg specifically state that these two factors encourage individuation rather than categorization and stereotyping. Reynolds found support for the idea that

stereotyping occurs when the context is intergroup rather than interpersonal. Further, she found evidence that categorization was occurring at both the intergroup and interpersonal levels when participants made two different individuated impressions of the same target depending on the superordinate categorization (Reynolds & Oakes, 1999). The authors ask: "Which impression is based on the 'actual' piecemeal integration of idiosyncratic characteristics. Which impression reflects the real interpretation of the given attributes?" (p230). The two impressions made reflected accentuation of relevant self-other similarities and differences, and the authors contend this is evidence of categorization at work.

If categorization is at work in both intergroup and interpersonal contexts, then the issue of stereotypic impressions being biased and individuated ones being "real" becomes mute. According to the cognitive miser analysis, stereotypic impressions are considered biased due to the loss of information inherent in the categorization process. Individuation is considered to be accurate, real, based on actual data at hand. However, if individual impressions are also formed through categorization then surely both individuated and stereotypic impressions can be valid. Oakes and Reynolds (1997, p70) state that stereotypes "emerge from processes designed to provide the perceiver with an accurate, though relative, representation of reality". That process is, of course, categorization as a search for coherence and meaning. Stereotypes are therefore, psychologically valid.

It is important at this point to note that the use of the terms “accurate”, “real” or “valid” in this approach do not necessarily mean “correct”. In no way does the approach outlined here intend to infer that all stereotypical impressions are “right” in a moral or political sense. That stereotyping and the perception of people as group members is as psychologically real as the perception of people as individuals, and that stereotypes are group products, born of intergroup relationships and therefore as functional and veridical as other representations of people, does not imply that these representations are always what we would want them to be from a political, religious, social or moral stance. What we must realize however, is that our decision about whether or not stereotyping is bad, is based on our own political, religious, social or moral framework and is nothing to do with stereotyping or categorization per se.

For example, Sherman, Macrae and Bodenhausen (2000) question the argument of Spears and Haslam (1997) that it is wrong to think of individuation as being inevitably superior to stereotyping and put forward their own argument that implies the superiority of individuation because the categorization chosen in a particular setting may not be the most appropriate or functional. They then go on to give the example of two people in a doctor’s office who define and interact with each other in terms of the categories “doctor” and “patient” and describe this situation as “appropriate, meaningful, and functional” (p151). Sherman et al., then state: “But what if the doctor is an African-American, and what if the patient invokes stereotypes implying that the doctor is not competent to provide treatment? Is this the most appropriate, meaningful, and functional state of affairs? It would hardly seem so.”

(p151). The authors fail to realize that their conception of what is appropriate, meaningful and functional in a psychological sense is a product of their own frame of reference in terms of the political and social norm of non-prejudice. Simply because we, as products of our own culture, may disagree with any particular stereotype, that stereotype is no less a product of veridical perception than our perceptions of individual people (see Oakes, 2000; Oakes et al., 1994; Oakes & Reynolds, 1997).

After all, we often disagree with others about our individual impressions and yet we do not consider that the impression gained by another person is the result of a biased cognitive process intended to protect cognitive resources, simply that the other person has had a different experience of the person involved (seen a “different side”) and therefore formed a different impression. Although we may consider their impression to be incorrect, we do not place the cause of this onto cognitive processes. Indeed, it has been argued in personality research that individual impressions are as much an act of categorization as group impressions (Cantor & Mischel, 1979; C. McCauley, 1988; Mischel, 1981) and that personality categorizations overgeneralize personal characteristics (Mischel, 1977).

If categorization is involved in all person perception and the process of categorization is a search for meaning and coherence, rather than an information reduction mechanism, then the issue is not, as Fiske and Neuberg would say “When do we categorize and when do we individuate?” but when do we categorize people as *individuals* and when do we categorize them as *group members* (Oakes & Turner,

1990)? In other words, when do we stereotype? We examined this question in Chapter 2 from the cognitive miser point of view. We will now re-examine it from our alternative perspective on social categorization, in particular from the point of view of self-categorization theory, which aimed to elaborate the cognitive mechanism underpinning all group behaviour, including stereotyping.

5.4 An alternative look at psychological group formation and stereotyping

Self-categorization theory (Turner, 1985; Turner, et al., 1987) was influenced the work of Bruner and Rosch in terms of its interpretation of the categorization process as it pertains to social and self-categorization. However, it also has its roots in social identity theory and Turner's collaboration with Henri Tajfel (Tajfel, 1981; Tajfel & Turner, 1986; Turner, 1981, 1982). Tajfel had posited that all social behaviour could be placed on a bipolar continuum from interpersonal to intergroup. As a person moved along this continuum, their behaviour would reflect this polarity and could therefore be described in terms of the person's idiosyncratic self or their social group memberships. As such, social behaviour reflected either the personal or the social self, personal or social identity. Tajfel's continuum was descriptive, rather than causative, however, with social identity reflecting *knowledge* of social group membership.

Turner (1982, 1984, 1985) was interested in finding the causative cognitive mechanism by which an individual could move from interpersonal to intergroup

behaviour, from the personal to social identity in a truly psychological sense. He saw this mechanism as a process of self-definition, or self-stereotyping, and states:

“Self-stereotyping produces the depersonalization of the self, i.e., the perceptual interchangeability or perceptual identity of oneself and others in the same group on relevant dimensions. It is this cognitive redefinition of the self – from unique attributes and individual differences to shared social category memberships and associated stereotypes – that mediates group behaviour.”(1984, p.528)

Rather than seeing social identity as purely *knowledge* of group behaviour, Turner suggested that social identity may *cause* group behaviour.

Thus began the development of “a self-categorization theory...a set of related assumptions and hypotheses about the functioning of the social self-concept...” (Turner et al., 1987). There have been many overviews and/or statements of the theory in the past 20 or so years (Turner, 1978, 1982, 1984, 1985, 1999; Turner et al., 1987; Turner & Oakes, 1989; Oakes et al., 1994) and a full review is not necessary or desirable for this thesis. We will therefore concentrate on the important features of the theory in terms of its initial assumptions about social identity, description of process and structure, hypotheses for group behaviour, and discussion of the determinants of the salience of group membership.

Self-categorization theory starts with the assumption that where there is interpersonal and intergroup behaviour there is also, correspondingly, personal and social identity. That is, social behaviour is caused by an underlying cognitive mechanism whereby

people define themselves in terms of either their personal, idiosyncratic self, or their shared category membership. Therefore, social identity is the cognitive mechanism that causes intergroup behaviour. The process by which this occurs involves the initial step of self-definition as a group member, followed by a perceptual accentuation of intragroup similarities and intergroup differences on relevant correlated dimensions. In social terms this means that people stereotype themselves and others in terms of a salient social categorization and this leads to an “enhanced perceptual identity between self and ingroup members and enhanced perceptual contrast between ingroup and outgroup members.” (Turner, 1999, p11). This process transforms individual into collective behaviour, as a person perceives, and acts in terms of, a collective self-concept. This is the process of depersonalization.

In the early stages of the theory’s development, Turner used Tajfel’s bipolar continuum to describe the structure of social and personal identity in self-concept. Later, however, this was replaced with the concept of a hierarchical structure (after Rosch, 1978) where self-categories exist at different levels of abstraction related by class inclusion. In Rosch’s hierarchy of natural categories, higher levels of abstraction include items from lower (subordinate) levels and are themselves included in superordinate levels above them. For example: the categories “apples” and “oranges” are subordinate levels of the middle order category “fruit”, which in turn is a subordinate level to the higher level category of “edible vegetation”. “Edible vegetation” includes both the middle order categories of “fruit” and “vegetables”, and in turn, the category “fruit” includes both the subordinate levels of

“apples” and “oranges” (among others). In this way, lower level categories cannot contain higher level ones but are themselves fully contained within them. In terms of self-categories, the hierarchy has many levels, of which personal and social identity are two. Social identity is considered to be a higher level of abstraction than personal identity (the subordinate level) and of a middle order of inclusiveness. The self-category of “self as a human being” would be considered to be a superordinate category, although there might also exist such higher categories as “self as a living thing”.

Importantly, this conceptualization of the self defines social identity as a more inclusive level of abstraction than personal identity and therefore social identity *includes* personal identity, it does not replace it. As Turner states, in many situations both personal and social identity may be at work. Whether self-perception is personalized or depersonalized is a matter of degree, as is whether behaviour reflects individual differences or collective similarities (Turner, 1999). Category boundaries are not fixed and impermeable, but fuzzy and fluid, allowing for movement according to contextual changes. The different levels of self-categorization are not necessarily inversely related, however, the perceptual effects of different levels will tend to be functionally antagonistic.

Although there are many levels of self-categories, the personal and the social level of identity are the “most important levels for understanding group behaviour.” (Turner, 1999, p12). There is a fundamental difference between acting in terms of social as

opposed to personal identity but "...when we perceive ourselves as 'we' and 'us' as opposed to 'I' and 'me', this is ordinary and normal self-experience...". The central hypothesis for group behaviour is that, when a particular social identity is salient, we will define and perceive ourselves as more interchangeable (similar, equivalent) with representatives of that shared category, we will self-stereotype according to relevant category dimensions, and that social self-perception is the basic process underlying group phenomena (Turner, 1987a).

One of the most important features of the theory for this thesis is the conceptualization of the salience of social categories. Previously, as stated in Chapter 2, salience has been dealt with as an issue of perceptual pop-out, determined by the relative novelty or distinctiveness of the category. Distinctiveness in this sense means numerical infrequency or rarity of the category. Distinctiveness can also be conceptualized as the degree of differentiation between categories, following Rosch's term "separateness and clarity". It is this latter conceptualization that has influenced the approach to salience in self-categorization theory. Oakes (1987) states that the relative separateness and clarity of a categorization reflects the extent to which individuals may be perceived as different between and similar within categories, and that this is positively related to category salience. Also related to category salience however, is the content or meaning of social categories. These ideas came together to form a theoretical approach to category salience that was based on the comparative relations between categories and the normative content of those categories. Further, Oakes and colleagues took a functional view of the relationship between salience and

the context of that salience, such that group perception will occur when it is appropriate, within the bounds of the individual's current goals and motives within a specific situation.

Therefore, following Bruner (1957), the salience of any level of self-categorization is determined by an interaction of accessibility (including goals and motivation) and fit (comparative and normative structure of the group context; Oakes, 1987; Oakes, Turner & Haslam, 1991; Turner, 1985; Turner & Oakes, 1986,1989). Accessibility of a category resides within the perceiver as a function of past experience, expectations, motives, values, goals and needs. Bruner (1957) defines accessibility as "perceiver readiness": the "readiness" of the perceiver to use a specific category and it is this term that has been used in the theory since Oakes et al. 1994. Importantly, this process is functional whereby the perceiver will actively select categories that are relevant or useful, *and* likely to be confirmed by reality. This conceptualization of perceiver readiness highlights the context dependence of the categorization process. That context may be either internal (perceiver driven) or external (within the bounds of external reality). Perceived external reality (the structure of the group context) is a product of comparative and normative fit.

Comparative fit is defined by the principle of meta-contrast. The meta-contrast ratio reflects the extent to which inter-category differences are less than or greater than intra-category differences. A particular social category will become salient when the differences between that category and others in the social context are greater than the

differences within the category itself. As Oakes et al. (1994) state, the meta-contrast ratio or comparative fit describes the comparative relations between people that cause them to be represented by a particular social category.

While comparative fit describes the structure of a particular group context, normative fit describes its content. Although we might perceive differences between one set of people to be less than the differences between that set and another, and therefore categorize the two sets as separate groups, we will not be afforded much meaning in this situation unless that categorization also takes account of the content of those differences and similarities. Content of perceived behaviour must make sense according to the normative expectations of a particular category membership in order for that membership to become salient. Although differences are apparent, they must be differences (and similarities) that are dimension specific for the particular categories. Differences and similarities on other dimensions will be irrelevant to the categorization process in that context – although may well be relevant and meaningful in determining a different categorization.

Again, it can be seen here that categorization in terms of the social identity of self or others is a dynamic, context-dependent process determined by perceiver readiness and both comparative and normative relations. Categorization is highly variable and the perception of similarity and difference that drives this process is also context dependent and variable. As stated above, social categorization of self and others is

both meaningful and coherent, and functions to enable the perceiver to use categories that are relevant and useful and likely to be confirmed by reality.

In summary, the key ideas of self-categorization theory are 1) that the level and kind of identity used to represent self and others varies with the perceiver's motives, values and expectations, background knowledge and theories, and the context within which categorization takes place, 2) that the salience of shared social identity leads to depersonalization of self-perception and 3) that depersonalization produces group behaviour, including stereotyping (Turner, 1999).

Self-categorization theory has given rise to a vast body of research on stereotyping in the last decade (Haslam, Turner, Oakes, McGarty & Hayes, 1992; Haslam & Turner, 1992, 1995, 1998; McGarty, Yzerbyt & Spears, 2002; Oakes et al., 1994; Oakes & Turner, 1990; Spears, Oakes, Ellemers & Haslam, 1997; Turner & Oakes, 1997; Turner, Oakes, Haslam & McGarty, 1994). A detailed analysis of this work is not necessary for this thesis. What is crucial however, is the conceptualization of stereotypes and stereotyping that this work supports. This large body of work suggests that stereotypes are not rigid or inflexible cognitive structures in our heads, nor are they irrational and invalid, or the product of faulty information processing and cognitive bias. Stereotypes are "...social categorical judgements, perceptions of people in terms of their group memberships. They represent categorizations of the group as a whole in the context of intra- and intergroup relations. They are fluid, variable and context-dependent." (Oakes et al., 1994, p211). Stereotypes are

constructed via a dynamic process of social judgement to explain, justify and describe intergroup relations (McGarty, Yzerbyt & Spears, 2002).

Oakes et al. (1994) put forward four important conclusions that can be drawn from the self-categorization theory approach to stereotyping. Firstly, the general cognitive model that sees stereotypes as fixed, rigid structures stored in memory is in need of revision. Secondly, social categorical perception is normal and adaptive as it defines people in terms of their group relationships and underlies group formation and behaviour. Thirdly, the dominant view of stereotyping and categorization as oversimplification, drawn from the cognitive miser metaphor, is false. Finally, the analysis of stereotyping and cognition has suffered from a refusal of researchers to take into account the social context that mediates individual cognitive activity.

In 1999, Turner wrote that the heyday of research on cognitive biases seemed to be already past. Researchers, Turner states, are talking of social perception as flexible, adaptive and meaningful. However, as recently as 1998 Bodenhausen and Macrae stated that “the road to...discrimination begins with the simple act of categorization” (p7) and as shown in Chapter 4, the relationship between stereotyping and mood is still seen as one that revolves around energy conservation or lack of motivation with stereotypes envisaged as “efficient, simplified bases for judgments” (Bodenhausen et al., 2001). The vast body of research that supports the self-categorization theory approach to stereotyping cannot be ignored and therefore a new conceptualization of the role of mood in stereotyping is both timely and important. Before we can move

on to re-examining this relationship, however, one more crucial factor must be examined.

We have seen how categorization can be conceptualized as a process of meaning elaboration. We have examined how this process can be applied to both object and person perception. Further, we have shown evidence that supports the idea that both interpersonal and intergroup perception derive from the one process of categorization and that the key to intergroup behaviour is self-categorization at the social level of identity. Finally, we have discussed the determinants of social identity salience and the emergence of psychological group membership via depersonalization. In addition, however, self-categorization theory recognizes the existence of a general tendency or preference for the *self* to be defined *positively*. People may use their social identity to engage in social comparison to develop what Tajfel called “positive distinctiveness”.

The concept of positive distinctiveness in social identity developed as part of Tajfel’s investigation of intergroup relations in the 1970’s. As stated earlier, self-categorization theory emerged, in part, from the collaboration of Tajfel and Turner during this time. We will now retrace these steps and the development of social identity theory, a theory of intergroup relations, which stemmed from a series of studies conducted by Tajfel and others after his seminal 1969 paper discussed in Chapter 2. In particular we will examine the emergence of the concept of positive distinctiveness.

Tajfel had set out to explore social categorization and its ability to produce ingroup bias (favouring the ingroup over the outgroup). This work became known as the “minimal group experiments” - minimal, because the aim of the original work was to find out the “minimal conditions” for ingroup bias to occur. Tajfel and his colleagues (Tajfel, Flament, Billig & Bundy, 1971) attempted to find a baseline whereby no discrimination would occur, so they assigned participants to two groups based on trivial criteria such as estimating the number of dots on a screen or preferences for the work of two abstract painters. It is now well known that the results of these experiments did not provide that baseline, and in fact, the schoolboy participants displayed ingroup bias, by allocating more points or money to ingroup members, even in these most “minimal” of conditions. By consistently favouring the ingroup over the outgroup, in conditions where no *individual* reward was forthcoming and in the absence of any intergroup conflict, the participants had behaved in a manner that none of the experimenters had expected.

What was more interesting though, was that this ingroup favouritism did not simply take the form of maximum ingroup profit – allocating the maximum amount to ingroup members regardless of the corresponding amount for outgroup members – there was also a strong influence of maximum difference in favour of the ingroup. Participants sacrificed maximum gain in order to maximize the *relative difference* between the ingroup and the outgroup.

The search for an explanation of these results ended in the development of social identity theory (Tajfel, 1972; Turner, 1975; Turner & Brown, 1978). Tajfel wanted to know why the participants of the minimal group studies reacted to the group memberships that had been allocated to them for such trivial reasons. He thought that the very fact that the situation was so meaningless was the trigger for the group behaviour displayed. It was the only way that the participants could make sense of the situation that they had been put into. By distinguishing themselves from the outgroup the participants created an identity for their own group and therefore attributed “some kind of meaning to an otherwise empty situation.” (Tajfel, 1972, p40).

Tajfel went on to state that perceivers use categorization in social interaction in the same way as they do in perception generally to structure their understanding of the environment in order to understand and predict behaviour. This, in turn, is a guide to action (Oakes, 2001). Social categorization enables the perceiver to define themselves in terms of their place in society, providing a self-definition that gives meaning to actions and attitudes in context. “Where the relevant categorization divides individuals into social groups, action within that context will take on the distinct meaning and significance of intergroup relations.” (Oakes et al., 1994, p82).

As stated earlier, Tajfel introduced the concept of a person’s *social identity*, defined as “that part of an individual’s self-concept which derives from his (sic) knowledge of his (sic) membership of a social group (or groups) together with the value and

emotional significance attached to that membership” (1978, p63). Social identity theory (SIT) then went on to explore the preconditions of ingroup bias and, more importantly for this thesis, the ways in which group members strive to achieve “positive distinctiveness”. SIT assumes that people strive for positive evaluations of themselves and that one of the ways in which we are evaluated, by ourselves and others, is through our group memberships. This social evaluation provides us with the opportunity to achieve a positive social identity. As the positivity of any social group depends on comparison with other groups, this is achieved through positive distinctiveness – finding a way to distinguish the ingroup from the outgroup on relevant dimensions in a positive direction. This is what Tajfel and Turner believed that the participants in the minimal group experiments had done.

Importantly, it should be noted that ingroup members do not strive for distinctiveness on all and every dimension on which the ingroup may be compared with the outgroup – only on relevant dimensions within the intergroup context at the time. For example, outgroup favouritism may be shown on dimensions that are not important for an ingroup’s preferred self-definition (Mummendey & Schreiber, 1983; Mummendey & Simon, 1989) or on dimensions where the outgroup is seen to be clearly superior (Mummendey & Otten, 1998). Positive distinctiveness then, is not simply saying “my group is better than your group” per se, it is a complex process that defines the important dimensions for a particular ingroup as compared to a particular outgroup. Where the important dimension of comparison may be “friendliness” in one comparative context, in another, with another outgroup, it may

be “intelligence” or “strength”. These issues are important when it comes to the analysis of stereotyping as both self and other stereotypes may change when the relevant outgroup changes.

For example, in one study, students at the Australian National University rated students at the Australian Catholic University, Canberra either alone or in comparison to another outgroup (the extremely right wing religious group “Call to Australia Party”). When ANU students rated ACU students alone, this outgroup was described as religious, conservative, conventional and tradition-loving. However, when participants thought that they would also be rating members of the CTA party, their descriptions of ACU students changed to include honest, and loyal to family with use of the trait religious dropping from 62% of participants to 44%. When ACU students were rated in a comparative context with CTA members, the stereotype changed to accommodate the more extreme position of the comparative outgroup (Oakes, Haslam & Reynolds, 1999).

Tajfel felt strongly that the stereotyping literature had developed the cognitive analysis in such a way that it had failed to account for these important aspects of categorization – accentuation on relative dimensions and the value differentials of social categories. In his last published paper on this topic (1981) he set forth an analysis of stereotyping that aimed to encompass more than the prevailing cognitive analysis had provided. Tajfel distinguished between the individual functions of stereotypes and the group functions. Individually, stereotypes served to organize and

simplify social perception (cognitive function), and to represent and maintain social values (motivational function). In terms of the group functions, stereotypes helped to explain social events and justify forms of collective action through the creation and maintenance of group beliefs. Importantly, Tajfel believed that stereotypes were also pivotal in the creation of *positive distinctiveness* as outlined above.

Two important concepts have arisen from the preceding discussion. Firstly, that stereotypes are a product of categorization of self and others at the social level of identity. They are fluid, dynamic and context dependent outcomes of the search for meaning and coherence. Secondly, the content of stereotypes allows us to develop a self-definition that is positively distinct from those whom we consider to be outgroup members, through the process of social comparison on relevant social dimensions. With these two concepts in mind, we can now turn back to the literature on mood and stereotyping with the aim of re-examining this work from within the self-categorization theory perspective.

5.5 A new look at mood and stereotyping

From the above analysis we have formed the following argument: if we understand categorization to be a process by which we give meaning to our world, not one by which we only simplify and reduce stimulus information, then we must see stereotyping as a meaning based process also. Stereotypes are the ways in which we describe the social groups around us, both those that we belong to and those that we do not. Stereotypes describe social categories that are formed and become salient as

a function of expectation-consistent meta-contrast (Haslam, Turner, Oakes, Reynolds & Doosje, 2002; Oakes, 1987; Oakes et al., 1994; Turner, et al., 1994). The content of stereotypes is formed so as to “positively and clearly differentiate self- and non-self categories.” (Haslam et al., 2002, p159). Further, this content reflects the ability of social categorization to provide us with a positive social identity through positive distinctiveness.

This analysis is clearly at odds with an analysis of stereotyping that sees stereotypes as cognitive information reduction tools, the result of limited information processing capacity and an heuristic style of processing. Given that we have an alternative perspective on categorization and stereotyping, what are the implications of this for mood and stereotyping? Mood effects have been found in relation to stereotyping and any alternative theoretical approach must be able to accommodate these findings. We believe that a new explanation of the role of mood in stereotyping hinges on the process of fit.

This thesis argues that, if stereotyping is the product of categorization at the social level of identity, then mood must affect stereotyping via a mediating effect on self-categorization as a group member. More explicitly, if self-categorization in terms of a social level of identity is the result of a particular self-category becoming salient due to an interaction of perceiver readiness and fit, then mood must have a mediating effect on this process if it is to have any effect on when or how we stereotype. Where then, does mood have this mediating effect? Is mood related to perceiver

readiness? Does a particular mood change the sense of self in such a way as to make certain self-categories more accessible? Or does being in a particular mood increase the fit between certain categories and the self? Evidence for some of these ideas can already be found simply by reexamining previous literature in the light of self-categorization theory.

In Chapter 4 we examined empirical work that focused on the relationship between mood and stereotyping. Work by Bodenhausen and colleagues, Bless and colleagues, and Forgas and colleagues supported the view that happy mood leads to stereotyping and sad mood to individuation. Angry mood (operationalised as “irritation”) also seems to enhance stereotyping. Work by Esses and colleagues however, showed that sad mood participants will stereotype when specifically asked to, although stereotyping may be inhibited in an impression formation task. These findings were, for the most part, explained via mood’s effect on processing strategy choice. Bodenhausen and colleagues emphasized an “effort reduction” strategy for both angry and happy participants, while Bless and colleagues explain stereotyping in happy mood as a “reliance on general knowledge structures” which include schema and stereotypes. Some problems with the research were alluded to in Chapter 4 and the idea that results could be reinterpreted in terms of perceiver readiness, fit and group membership was raised. We will now discuss these points in more detail.

Firstly, it is helpful to revisit the methodology of the two main research programs in the area, that of Bodenhausen and colleagues, and that of Bless and colleagues. We

will see that there are similarities in the work carried out, similarities that are important in relation to the argument of this thesis. Further, the studies detailed here characterize the general approach illustrated in the literature and therefore provide an insight into the empirical work of the field as a whole.

As detailed in Chapter 4, Bodenhausen conducted three experiments to investigate the effects of anger and sadness, and four experiments to investigate the effects of happiness. It is the series of experiments on happiness that we are particularly interested in and the same stimuli and procedure were used in all of these as were used in the first of the studies on anger. Student participants had to judge the guilt of a male target, who had been accused of a transgression. The transgression was stereotypically linked with a particular ethnic background (Spanish American) or with a particular student group (track and field athletes). The transgression was either an act of aggression (Spanish American stereotype) or an act of cheating (track and field athlete stereotype). Participants read stimulus material that was ambiguous in terms of the guilt or innocence of the proposed perpetrator. Half of the participants were exposed to the stereotype via mention of the transgressor's name (Juan Garcia) or their student group membership (track and field athlete) while the other half were not exposed. There were no differences between the two sets of stimuli in the consequent analysis in the first study on anger, therefore in the series on happiness, only the stimulus set for the Spanish American stereotype was used.

In the work of Bless and colleagues, participants were exposed to tape recorded information about a target who was either a representative of Greenpeace, or the manager of a chemical company (categorical information). The tapes provided eight behaviour descriptions that were either predominantly positive or predominantly negative (individuating information). Behaviours were related to career mindedness, consumer orientation, ecological responsibility, and likeability – e.g.: “drives a fancy sports car to work”, “avoids fast food outlets”, “uses public transport to get to work”. Note here that “positive” individuating information is also consistent with the stereotype of Greenpeace representative while “negative” individuating information is inconsistent.

What are the similarities in these programs of research and why are these important for this thesis? One of the main points regarding the design of previous research is that the self-categorization for participants is usually implicit. Groups are chosen specifically to elicit stereotypic responses for the target and pilot work is used to ascertain outgroups for which a strong stereotype exists within the participant population. Although it is the target who is a member of a particular outgroup, where there is outgroup, there is also, implicitly, ingroup (see Haslam, et al., 1995). Participants in these studies are experiencing an implicit self-categorization due to comparison with the explicit outgroup.

Further, the valence of the implicit ingroup is always positive. Obviously, researchers do not intentionally design studies where the ingroup is negative, as they

want to encourage identification with the group in question. In these studies, however, the ingroup is positive by virtue of the comparison with the negative outgroup. What results is the target being a member of a negatively stereotyped outgroup, leaving the participant as a member of an implicit, positive ingroup. For example, this can be seen in the work of Bodenhausen where the target is a member of the outgroup “Hispanic” designated by the use of an Hispanic name “Juan Garcia”. In the studies by Bless and colleagues, the target is either a member of Greenpeace or the manager of a chemical company.

We have named these two factors “implicit group membership” and “positive ingroup valence” and believe that it is these factors that are responsible for the mood and stereotyping effects previously found. The proposed process works in three steps. Firstly, when ingroup membership is implicit rather than explicit (target group membership is explicitly stated leaving participant group membership as implicit), this lowers salience of the intergroup context, due to lowered comparative fit. As stated by Oakes (1987, following Rosch, 1978) the level of separateness and clarity of categories is positively related to salience. When the two categories in question are ingroup and outgroup, and the ingroup is implicit, separateness (differences between the categories) and clarity (similarities within the ingroup category) are low due to more potential variability in perceivers’ definition of the ingroup/outgroup categorization that may apply. Separateness and clarity are related to the meta-contrast ratio of differences between categories to differences within categories.

When this ratio is low, comparative fit is low and this is negatively related to salience. Some evidence for implicit ingroup membership leading to lowered salience has been found in the work of Spears and colleagues (Spears, 2002).

From self-categorization theory we also know that salience is influenced by normative fit. Normative fit in this instance can be described as the fit between the perceiver's positive mood state and the positive valence of the implicit ingroup. So, when the ingroup membership is positive and the perceiver's mood is positive, this heightens salience due to the match between self-concept in terms of positive mood and self-categorization in terms of a positive ingroup membership. Some support for this idea can be found in the work of Rust (1995) who found that participants in a happy mood rated themselves more strongly as members of positive categories compared to subject in a neutral mood. Further, Isen and colleagues have concluded from results of a number of experiments that positive affect may mediate a greater responsiveness to the intergroup context (Dovidio, et al., 1998).

Finally, the interaction of these two factors results in relatively heightened salience of the intergroup context for happy participants relative to those in a neutral or sad mood. This process can explain why there appears to be no activation of a stereotype even for neutral mood participants in mood and stereotyping studies, even though we can confidently assume that pilot work was carried out on a general population whose mood could be considered "neutral". Sad mood participants do not experience

the match between self in terms of mood and self-categorization in terms of a positive group membership as their mood is not positive.

A note should be made here about the results for angry participants. Importantly, many studies point to the fact that anger and sadness are distinct entities (Bodenhausen, 1993; Isen, 1984, 1987). These two emotions should not be conceptualized as similar, or indeed as both representing negative mood in opposition to happiness representing positive mood. While sadness may be “negative” in its effects on self-concept (see Isen, 1984), there is evidence to show that anger may be thought of as a positive emotion. Levine (1996) notes that the dimensions of agency and coping potential differentiate anger and sadness. Anger has been seen to be associated with a greater sense of agency (that something or someone is the cause of the emotion and therefore the situation can be controlled) and with a sense of power and the belief that one can do something to reinstate one’s goals. Sadness on the other hand, is associated with a sense of irrevocable loss, low control and powerlessness.

Certainly, work by Bodenhausen has shown that anger and happiness have similar effects rather than anger and sadness. If we conceptualize anger as a positive rather than a negative emotion in terms of self concept, then the same argument that was made above in regard to positive self-categorization and positive self-concept heightening the salience of the intergroup context can be made for the emotion of anger. We have noted, however, the problems with trying to create true anger (or

anything close to it) in the laboratory and for the purposes of this thesis, we have concentrated on moods related to happiness and sadness.

In summary then, this thesis argues that stereotyping is a product of self-categorization at the social level of identity and that social identity salience is a product of the interaction between perceiver readiness and fit. Further, that positive mood heightens, and negative mood lowers, the salience of self categorization as a member of a positively valenced ingroup as a function of the perceived fit between valence of self (positive or negative mood), and valence of group. Finally, that the positivity of any ingroup is perceived via comparison with a relevant outgroup such that the ingroup (and therefore the self) is defined as positively distinct on the dimensions of importance within the current context. The general hypothesis then, is that membership of a positive ingroup, in comparison with a negative outgroup, and in combination with a positive self definition through experience of a positive mood will heighten the salience of the intergroup context and result in increased stereotyping.

In this section of the chapter we have outlined our theoretical basis for the program of research that was undertaken and presented the specific arguments that were tested. We will now present an overview of the research program, general hypotheses and predictions.

5.6 The current program of research

Four experiments were designed to test the arguments presented above. All studies used explicit group membership whereby the identity of the participant was manipulated directly, and the valence of the ingroup was altered to reflect a positive or negative self-reference. The first study was designed to test the general hypothesis that stereotyping is an outcome of self-categorization at the social level of identity and not the outcome of a particular mood state per se. Mood and group context were manipulated and stereotyping was predicted under conditions of intergroup as opposed to interpersonal judgmental context. This study is reported in detail in Chapter 6.

Chapter 7 details the second study of the program where group context and mood were manipulated in terms of an explicit, positively valenced ingroup membership. It was predicted that stereotyping would occur in the intergroup context and that this effect would be heightened for participants in a happy mood. In Chapter 8 and Chapter 9 two studies are presented that had the same design but differed in the type of groups used to manipulate identity. Real groups were used in the third study (Chapter 8) while minimal groups were used in the last study of the program (Chapter 9). These two studies manipulated mood and group valence in order to investigate the effects of negative group membership and sad mood, as well as extend the understanding of positive group membership and positive mood. It was predicted that stereotyping would be enhanced for both the happy participants who experience

a positive group membership, and the sad participants who experienced a negative group membership.

Overall, the empirical program was designed to show support for the conceptualization of mood as a mediating variable in stereotype activation via its effect on the self-concept rather than its effect on information processing strategy. In the next chapter we deal with the first step of that program.

CHAPTER 6

Study 1

The effects of context on stereotypic judgments in happy, neutral and sad moods

The preceding chapters have outlined two approaches to the study of stereotypes and the role of mood in the stereotyping process. Work stemming from the cognitive miser meta-theory (Taylor, 1981; Fiske & Neuberg, 1989; Brewer, 1988; Bodenhausen & Lichtenstein, 1987; Macrae et al., 1994) characterizes stereotypes as information reduction tools used to save cognitive resources. From this perspective, the role of mood in stereotyping is via mood's effects on information processing strategy choice (Bodenhausen, 1993; Bodenhausen et al., 2001, Forgas, 1995, Stroessner & Mackie, 1993, Mackie et al., 1996). In the main, happy mood leads to the use of stereotypes via heuristic (top-down) processing or the reliance on general knowledge structures (Bless, Clore et al., 1996), while sad mood leads to individuation due to systematic (bottom-up) processing.

Alternatively, self-categorisation theorists see stereotypes as tools developed by groups to represent their members' shared social reality (Haslam et al., 2002), used by perceivers when acting in terms of their self-categorization at the social

level of identity (Oakes et al., 1994; Oakes & Turner, 1990; Oakes et al., 1991). From self-categorization theory we can hypothesize that the role of mood in stereotyping is via its effects on self-concept and the salience of self-categories at the social identity level.

The first study in the empirical program was designed to investigate the question of when we stereotype in relation to mood and context. Is stereotyping an outcome of being in a positive mood state and therefore being unable or unwilling to expend cognitive energy to think more carefully about a target? Or is stereotyping the outcome of a contextually dependent process of self-categorization at the social level of identity, a process affected by mood via the match (or mismatch) of self-concept in terms of current mood, and self-concept in terms of the normative content of currently available social self-categorizations? These were the questions that the first study explored.

The design of the study was similar to Reynolds and Oakes (1999, Study 1), whereby judgmental context was crossed with interdependence to test between Fiske and Neuberg's continuum model and self-categorization theory in an impression formation task. Reynolds and Oakes had participants judge either an outgroup (intergroup condition) or ingroup (interpersonal condition) target, under conditions of interdependence or no interdependence. In the current study, judgmental context was crossed with mood in order to test between information processing and self-categorization theory accounts of mood's effect on stereotyping. If the information processing approach is accurate, we would expect that the context variable would have no effect – participants would stereotype in

the happy mood condition regardless of context. If self-categorization theory is a better explanation of stereotyping, participants will stereotype the target in the intergroup context and not in the interpersonal context, regardless of their mood.

Participants were placed into happy, sad or neutral moods by the “recall and write” procedure. This procedure is used extensively in the field of mood research to manipulate mood in the laboratory and entails participants thinking of a life event that was either extremely positive or extremely negative and then writing about that event. Strack, Schwarz and Gschneidinger (1985) found that writing about a past event elicits affect associated with that event if the participant writes a vivid and detailed description and if they concentrate on how the event occurred, not why. This mood manipulation sometimes has a contrasting effect on experienced present affect, however it has been used successfully in the studies of Bodenhausen and colleagues and Bless and colleagues. Instructions for the present study were designed to have participants write detailed and vivid descriptions that focused on how the event occurred. To manipulate neutral mood, participants simply wrote about a banal daily event.

One of the important points raised in the previous chapter was the issue of the design of previous studies in the field, especially in relation to target vs participant group membership. Previous research (for example, Bodenhausen, Kramer et al., 1994; Bodenhausen, Sheppard et al., 1994; Bless, Schwarz & Kimmelmeier, 1996; Bless, Schwarz & Wieland, 1996; Forgas, 1995) has been designed in such a way that target group membership is manipulated, leaving participants’ ingroup as both implicit and positive. It is these two factors (implicit

group membership and positive ingroup valence) that we believe mediate stereotyping responses in previous studies. Implicit group membership (manipulating the target's group membership rather than the participant's) leads to lowered salience of the intergroup context and thus attenuates stereotypic judgments (Spears, 2002). Positive ingroup valence, however, heightens salience for those participants in happy moods (Rust, 1995, cited in Dovidio et al., 1998; Isen, 1987) therefore increasing stereotyping in those conditions. In the present study, group membership of the participants was manipulated explicitly to heighten the salience of the intergroup or interpersonal level of self-categorization for all participants. Participants were university students and group membership was manipulated in terms of their identity as "younger students" (intergroup condition) or "students" (interpersonal/intragroup condition) in comparison to the target who was a mature age student.

The cover story for this study involved participants being asked to give responses about the acceptance of students into university as part of a university wide survey into student populations. Participants were exposed to consistent, inconsistent and neutral information about a mature age woman who had purportedly applied for admission to university and been recently accepted. The information was presented as statements of behaviour and attitudes that had previously been pilot tested for stereotypical consistency. Participants then responded on a list of attributes that was also piloted for consistency with the stereotype of older or younger students.

A set of items that would allow the participants to show ingroup bias/outgroup derogation was also included as a measure of group based behaviour. Ingroup bias (social competition) is most likely to occur when the intergroup context is salient and when the status of the ingroup is threatened on a relevant dimension by a relevant outgroup (Turner, 1999). Threat was manipulated by stating that either “students” or “younger students” were usually affected by funding decisions in higher education. Giving mature age students a place at university would threaten places for younger students when funding was in crisis. Ingroup bias in this situation would be an indicator of group identification and salience, and therefore of the characterisation of the target as outgroup member.

The ingroup bias items were followed by a number of items designed to take the participants “beyond the information given” (Bruner, 1957) in terms of the category of mature age student. These items were not related to student life but described other behaviours that may be associated with older or younger people in general. Again, these had been previously piloted. Stereotyping then, was measured through endorsement of a set of attributes that included consistent, inconsistent and neutral words, demonstration of ingroup bias, and endorsement of a set of items that were consistent, inconsistent and neutral in regard to a general category of older person and could be seen to be an extension of the mature age student stereotype.

From self-categorization theory we hypothesise that stereotyping occurs when the self and others are categorized at the social level of identity and that stereotypes are the tools developed by groups to represent the social reality of the intergroup

context. Therefore we predicted that participants in the intergroup condition would stereotype the target more in terms of her membership of the group “mature-aged students” than those participants in the interpersonal condition. Further, we predicted that more ingroup bias would be displayed by participants in the intergroup condition compared to those in the interpersonal condition.

METHOD

Participants:

One hundred and eight first year psychology students from the Australian National University participated in the experiment in exchange for course credit. There were 96 females and 12 males aged between 18 and 48 years.

Design:

The experiment was a 2 (context: intergroup or interpersonal) by 3 (mood: positive, neutral or negative) design with context manipulated between participants and mood manipulated between groups. For reasons of face validity, where participants were obviously mature age they were allocated to the interpersonal condition. *Note: this allocation renders the context variable quasi-experimental.*

Stimuli and Procedure:

Piloting of stimulus materials, attributes and “going beyond” items: In the initial stage of piloting, 15 second year social psychology students were asked to read through a list of words (a modified Katz/Brady checklist of 72 traits was used) and

put an O next to those words that were more descriptive of older students and a Y next to those words that were more descriptive of younger students. If the participant felt that a word described both or neither groups, they were instructed to leave the space blank. Frequencies were then calculated for each word. Those traits with the highest frequency of choice for each group were chosen for inclusion, however it was also important that traits had very low frequencies for the *opposing* group. Attributes were also rated as positive, negative or neutral in valence and an approximately equal number of each type were used.

In the second stage of piloting, the traits chosen initially were listed within a booklet that also contained the behavioural/attitudinal statements about the target and the "going beyond" items. This booklet was then distributed to a further 15 second year social psychology students who were asked to rate each statement and each attribute as typical, or likely to describe, an older or younger student on 9-point Likert scales. Results from this stage of piloting gave us 15 statements of behaviour/attitude, 16 attributes and 8 "going beyond" items that differed in terms of consistency with the mature age student stereotype and, in the case of the attributes, in terms of direction of valence.

Procedure: Participants were tested in groups of up to 11 people. When participants entered the laboratory they were initially told that they would be taking part in two experiments. The first experiment was entitled "Mood and Cognition" and was described as a study based on Beck's Cognitive Theory of Depression whereby they would be asked to complete a "cognitive mood task" and answer some questions over a period of time. Participants were told that they

would complete response forms in regard to this experiment three times: the first responses would be immediately after completing the task, the second set of responses would be following a short time lapse, the third set of responses would be following a longer time lapse. (In the running of the experiment these time lapses were in the order of 45-60 seconds and 4-7 minutes respectively, however participants were led to believe that preset time lapses were being measured). The time lapses provided the rationale for participants' involvement in the "second experiment" which was described as a study being undertaken by the psychology department for university administration that looked at the views of students about entrance requirements.

Mood manipulation: Mood was manipulated using a "recall and write" method. Specifically, participants were asked to write about a past event that had made them feel either extremely happy (positive mood induction) or extremely sad (negative mood induction) or an event that had made them feel neither happy nor sad (neutral mood induction). For the positive and negative conditions, participants were told that they had approximately 15 minutes to complete the task and they were encouraged to use both sides of the paper if necessary. They were also told to concentrate on a concrete and vivid description of the event that focussed on exactly what happened and how it happened. In contrast, in the neutral mood condition, participants were told that they had about 5 minutes for the task and the space provided for a response was only a few lines. They were told to focus on why the event happened. Following this, participants responded on two Likert-type scales to the questions "Right at this moment how do you feel?" (1(extremely sad) to 9 (extremely happy)) and "How would you rate your

general life satisfaction at this time?” (1 (extremely unsatisfied) to 9 (extremely satisfied))

Context manipulation: Participants were then presented with the “second study” and asked to read the front page of the booklet only. The rationale for this was that the first time lapse between responses for the cognitive mood task was only short and the experimenter did not want to disturb them while they were completing the questionnaire. For the sake of efficiency, then, they should simply read the instructions on the first page and wait for the experimenter to distribute the second response sheet. On the front page of the booklet was a short statement that explained that the study was looking at the views of students (interpersonal condition) or younger students (intergroup condition) about entrance requirements to university. It was stated that after a review of existing policy, it was decided to seek input from students/younger students “as most of the population of university is made of students/younger students and students/younger students have been...most involved with and affected by the recent funding decisions (usually negatively)...the views of students/younger students are important and will be taken seriously in formulating policy”. Participants read that they would be presented with information about applicants taken from interviews and application statements, and that policies take into account academic potential and personal qualities and the “degree to which offering a place can be seen to be worthwhile both to the applicant and to the community at large.” For the intergroup condition (younger students) participants were also asked to tick the age bracket most appropriate to them. Age brackets were 17-23, 24-29, 30-34, 35-39, 40-44, and over 45. After around 45-60 seconds, the second response

sheet for the cognitive mood task was distributed and participants filled these in before turning the page and reading the information about the target.

The target was a female (named Judith) who was stated to be 48 years old and recently enrolled in a Bachelor Degree course at the university. Fifteen statements that had been previously piloted described Judith's behaviour as consistent (8 statements), inconsistent (4 statements) or neutral (3 statements) in terms of the stereotype of mature-age students.

Participants were then asked to rate Judith in terms of the sixteen attributes in response to the question: "How likely is it that Judith can be described as....?". Responses were made on 9-point scales ranging from 1 (not at all likely) to 9 (extremely likely). Attributes were chosen through previous piloting (see above) as consistent/inconsistent/neutral in terms of the stereotype and as positive, negative or neutral in valence, resulting in (3) consistent/positive, (3) inconsistent/positive, (3) consistent/negative, (3) inconsistent/negative, (2) neutral/positive and (2) neutral/negative.

Following the attributes, four in-group bias questions were asked. These were:

1. How likely is it that Judith will succeed at University?
2. How likely is it that Judith's qualifications gained at University will be useful:
 1. to her personally?
 2. to the wider community?
3. How much would you agree with the following statement?

"Giving older people places at University takes places away from younger people with more to give."

4. Should Judith have been accepted to a University course?

All of these measures were responded to on 9-point scales whereby a lower score indicates more in-group bias, except on the “places at University” statement where more agreement (higher score) indicates higher in-group bias.

The set of “going beyond the information” items was next. These comprised 4 consistent, 2 inconsistent and 2 neutral items on 9-point scales with participants rating the likelihood that Judith engaged in certain forms of behaviour (listened to alternative radio stations, went to church) or agreed with certain ideologies (feminism, conservatism).

Finally, participants were asked about how they were thinking of themselves when they answered the questions about Judith and to respond to each of three statements:

“I was thinking about myself as an individual”

“I was thinking about myself as a student”

“I was thinking about myself as a younger student in comparison to Judith as an older student”

They were also asked to supply their age and gender.

When participants had completed the stereotyping measures they were given a final response sheet for the cognitive mood task. All responses were collected and participants were debriefed and allowed to leave. Participants in the negative mood condition were asked to complete a positive mood induction procedure before leaving in order to counteract any lingering negative affect.

RESULTS

Mood manipulation: Data for the three mood task response times were analysed in separate one-way ANOVA's to determine the efficacy of the mood manipulation in eliciting the expected affective responses. Mean ratings for the question "Right at this moment how do you feel?" are presented in Table 6.1 as a function of condition and response time.

Table 6.1: Mean self ratings of mood as a function of condition and response time (standard deviations in parenthesis).

Condition	Response Time		
	1	2	3
positive	6.29 (1.06)	5.66 (0.88)	5.71 (0.90)
neutral	5.33 (1.03)	5.36 (1.06)	5.51 (1.10)
negative	3.19 (1.72)	4.64 (1.30)	5.29 (1.22)

Participants' responses immediately following the mood task (response time 1) indicate that mood was successfully manipulated at this stage. Participants in the positive mood condition rated themselves as significantly happier ($\underline{M}$ =6.29) than either the neutral mood participants ($\underline{M}$ =5.33), ($t(105)=3.52$, $p<.001$) or the sad mood participants ($\underline{M}$ =3.19), ($t(105)=10.73$, $p<.000$). Sad mood participants were also significantly sadder than neutral mood participants ($\underline{M}$ =3.19, $\underline{M}$ =5.33 respectively; $t(105)=7.46$, $p<.000$).

However, when participants responded to this question for the second time (after having read the “instruction page” of the stereotyping measures, ie after self-categorization should have taken place but before reading the target information), no significant difference was found between the happy participants and the neutral participants ($M=5.65$, $M=5.35$ respectively, $t(105)= 1.21, p<.23$). Sad mood participants were still significantly sadder than either the happy mood participants or the neutral mood participants at this point ($M=4.65$, $t(105)=3.87, p<.000$ and $t(105)= 2.74, p<.007$), however at the last response time all significant differences between mood had disappeared ($M_s=5.71$ positive, 5.51neutral, 5.29negative).

Attribute measures: Participants’ responses on the attribute measures were initially analysed via MANOVA, revealing no significant effects for mood or for the mood by context interaction. As predicted, significant main effects for context were found for one of the consistent attributes and one of the inconsistent attributes. Means for these attributes are displayed in Table 6.2.

Table 6.2: Mean ratings of the likelihood that Judith can be described by this attribute as a function of context condition (standard deviations in parentheses)

	interpersonal	intergroup
conventional	4.82 (1.59)	5.44 (1.65)
outgoing	6.44 (1.25)	5.87 (1.42)

It can be seen that participants in the intergroup condition rated Judith as being significantly more likely to be conventional ($M=5.44$ and $M=4.82$; $F(1,97)=5.15, p<.03$). Participants also rated Judith as being significantly less

likely to be outgoing ($\underline{M}=5.87$ and $\underline{M}=6.44$; $F(1,97)=5.13, p<.03$). Interestingly, means for four of the other consistent attributes and four of the other inconsistent attributes were in the predicted direction although not significantly different. Judith was seen in the intergroup condition as more opinionated, more pedantic, more practical and more determined (all piloted as being stereotypically mature-age student), while being less impulsive, less rebellious, less sociable and less talkative (more stereotypically young student). Overall, these results support predictions that more stereotyping will occur in the intergroup condition than the interpersonal one.

Ingroup bias measures: As with the attribute measures, the ingroup bias measures were initially analysed via MANOVA with no significant effects being found for either mood or the context by mood interaction. A significant main effect was found however, for context. Means and standard deviations for these measures can be seen in Table 6.3 as a function of condition. It can be seen that participants in the intergroup condition agreed less with the question, "Should Judith have been accepted to a University course?", with $\underline{M}=7.19$ and $\underline{M}=7.71$ ($F(1,97)=4.52, p<.04$). Participants in the intergroup condition also rated Judith as being less likely to succeed at University with $\underline{M}=6.21$ and $\underline{M}=6.83$ ($F(1,97)=4.31, p<.05$); and also showed more agreement with the statement "Giving older people places at University takes places away from younger people with more to give." ($\underline{M}=3.37$, $\underline{M}=2.53$; $F(1,97)=5.45, p<.03$). Results for the other ingroup bias measures ("How likely is it that Judith's qualifications gained at University will be useful: to her personally?, To the wider community?") showed no significant differences between condition however, again, the means were in

the expected direction. Overall then, subjects in the intergroup condition showed more ingroup-bias than participants in the interpersonal condition, supporting predictions made.

Table 6.3: Mean responses to ingroup-bias measures as a function of condition (standard deviations in parentheses)

Bias measure	interpersonal	intergroup
"Accept J to Uni"	7.71(1.25)	7.19(1.63)
"J succeed at Uni"	6.83(1.15)	6.21(1.37)
"Older people places"	2.53(1.55)	3.37(2.19)

Going beyond the information items: Analysis of these items showed mixed results with the only strong effect being for the item "How likely is it that Judith plays bridge?". Here, a significant effect for context was revealed with participants in the intergroup condition rating Judith as being more likely to play bridge (stereotypically consistent for mature-age students) with $\underline{M}=4.92$ and $\underline{M}=4.18$, ($\underline{F}(1,97)=6.21, p<.02$). Means were also in the predicted direction for "How likely is it that Judith often listens to the alternative music radio stations?" and "How likely is it that Judith goes to church?". These results support the idea that Judith was being defined in terms of her group membership more in the intergroup condition than the interpersonal one.

No significant effects were found for the last measures where participants had to rate whether they were thinking about themselves as an individual, a student or a younger student in comparison to Judith as an older student.

DISCUSSION

This first study in the empirical program was designed to investigate the question of when we stereotype in relation to mood and context. Results showed considerable support for the prediction that participants would stereotype when the context in which they were making a judgment was an intergroup context rather than an interpersonal one. No support was found for the idea that happy mood produces heightened stereotyping. Happy, neutral and sad participants stereotyped the target more in terms of the mature age student stereotype in the intergroup condition compared to the interpersonal condition while no effect for the mood variable was found.

These results are consistent with many studies that show we will stereotype when the context in which we are making a judgment is an intergroup context (eg: Oakes et al., 1991; Reynolds & Oakes, 1999, Study 1). In line with self-categorization theory, the results add to work that conceptualises stereotypes as group descriptions that are used by perceivers when they are acting in terms of their self-categorization at the social level of identity (Oakes & Turner, 1990; Oakes et al., 1994; Turner et al., 1987). When participants were induced to think of themselves as younger students in comparison to Judith as a mature-age student, the context of the psychological situation was one of intergroup relations

– in particular, one of intergroup competition. This resulted in participants' descriptions of Judith reflecting their representation of her as a member of an outgroup. Hence, Judith was described more in terms of the mature-age student stereotype, and participants displayed more ingroup bias when asked to comment on the broader issue of acceptance of mature-aged students into universities, in the intergroup condition.

In the interpersonal condition, Judith was less likely to be described in terms of her mature-aged student group membership, as participants' self-categorization as "students" was in play. At this level of abstraction, both Judith and the participant students were in the same group and hence, descriptions should not be based on the mature-age stereotype. The finding that descriptions were less stereotypical in this condition supports this argument.

The finding that mood had no effect on any of the dependent variables is consistent with the idea that mood, per se, does not directly lead to stereotyping. Happy participants were no more likely to stereotype Judith than sad or neutral ones. According to previous mood and stereotyping research, mood mediates stereotypical judgments via cognitive capacity (Stroessner & Mackie, 1993), motivation to avoid cognitive effort (Bodenhausen, 1993) or by signalling that it is safe to rely on general knowledge structures (Bless, Clore et al., 1996). If this was the case, happy mood participants should have stereotyped Judith while sad and neutral mood ones should not. At the very least, happy participants should have shown enhanced stereotyping in comparison to neutral and sad mood participants. This study showed no support for these arguments.

A complication for this study, though, is that the mood induction procedure appeared to be successful for a limited amount of time. When tested just prior to reading the target information (though after self-categorization at the social level of identity), it was found that happy participants were no longer significantly happier than neutral mood participants. There was however, still a significant difference between sad participants and neutral/happy participants. It could be argued therefore, that this study really only tested the difference between neutral and sad participants. According to the information processing account, no stereotyping effects would be expected, as it is happy perceivers who are expected to stereotype.

However, it is apparent that stereotyping did indeed occur, as there are discernible effects for context. This finding is difficult to explain via the information processing/happy mood argument as there is clear evidence of sad and neutral mood participants stereotyping when in the intergroup condition. Previous research that has found support for sad perceivers engaging in stereotyping has explained this effect in terms of mood congruency or mood repair. Sad people are seen to engage in denigration of the outgroup in order to make themselves feel better, or because their negative mood triggers associations with negative material in memory (Bower, 1981, 1991; Esses & Zanna, 1995; Isen, 1984,). The fact that Judith, the target in this study, was described in terms of both positive and negative material means that sad perceivers were engaging in *positive* stereotyping in the intergroup condition. This cannot be explained in terms of negative mood congruency, negative memory associations or outgroup denigration to improve self-esteem.

Interestingly, as stated above, no effect was found for happy mood *enhancing* stereotyping in the intergroup condition. Given the results of previous research, we may have expected that happy participants would stereotype more than sad or neutral mood participants in the intergroup context. There are two possible reasons for the lack of this effect. We have already discussed the first reason, that if the happy mood manipulation was limited in its effects, then participants in the happy mood condition may not have been experiencing happiness.

The second possible explanation is that the introduction of intergroup competition may well have affected the valence of the ingroup. By creating a situation where the outgroup may have had an advantage over the ingroup in some important way, the ingroup may have been experienced as slightly negative in comparison. As outlined in Chapter 5, we believe that the creation of an implicit positive ingroup is responsible for the happy mood/stereotyping effect found in a large number of previous studies. In this study we may well have inadvertently created a negative ingroup. Unfortunately, it is difficult to distinguish between these two possibilities in this study. If our happy mood manipulation effects were too short then we have no way of knowing if our context effects could have interacted with mood even in the face of a negative ingroup.

In previous research (Bless, Clore et al, 1996, Bless, Schwarz & Kemmelmeier, 1996, Bless, Schwarz & Wieland, 1996; Bodenhausen, Kramer et al, 1994; Bodenhausen, Sheppard et al, 1994; Forgas, 1995) the mood manipulation has only been checked at one point in time, directly following the task. This study, by measuring mood at three different times, has shown clearly that the mood

manipulation for happy participants did not last long. Indeed, in discussions with other researchers it has been made clear that mood effects are fairly short-lived and that this creates a problem for the field (K. Williams, personal communication, 2000; H Bless, personal communication, 2000). It is therefore imperative that stereotyping measures are presented to participants as soon as possible after the mood manipulation task to avoid disengagement and loss of effects. This was an important procedural point for the follow up studies in this thesis.

Although this study is hampered somewhat by this issue, the problem does not negate the basic theoretical argument that stereotyping occurs at the social level of identity as effects for the context variable attest to this. The results of this study support self-categorization theory's approach to stereotyping and group behaviour (McGarty et al, 2002; Oakes et al, 1994; Spears et al, 1997). Participants in different mood states responded to the context in which they were making judgments of the target such that more stereotypic judgments were made in the intergroup context than the interpersonal one. The finding that all participants stereotyped in the intergroup condition regardless of mood is difficult to explain in terms of an information processing approach. Further, participants could not be said to be displaying simply a negative stereotype as positive, neutral and negative attributes were used in their descriptions.

Having shown some initial support for the basic theoretical argument of this thesis, we now need to explore more fully the specific ways in which we predict mood interacts with context to produce more stereotyping in happy mood. This

fairly robust finding in the literature is the product, we believe, of the fit that happy mood perceivers find in membership of a positive ingroup. It is imperative therefore, that we create a positive ingroup while also manipulating group membership explicitly. The second study in the series was therefore designed to test the idea that happy perceivers find heightened salience in the intergroup context when their ingroup is positive, in comparison to a negative outgroup. This study is presented in the next chapter.

CHAPTER 7

Study 2

Happy mood and positive ingroup identity: a fit-based approach to the happy mood/stereotyping effect

In the preceding chapter, we presented some initial support for a self-categorization theory approach to the study of mood and stereotyping. Many studies have established that stereotyping is the result of categorization of self and others at the social level of identity (eg: Hogg & Turner, 1987; Oakes et al., 1991; Reynolds & Oakes, 1999, Study 1). It was our task to place mood into a context manipulation to test between information processing accounts of mood and stereotyping, and a self-categorization theory approach as outlined in this thesis. Results indicated that context is more important than mood in explanations of when and where we will stereotype. We now need to examine more closely the specific relationship between mood and stereotyping. In particular, we need to explore our argument in regard to the specific relationship between happiness, group membership and stereotyping.

Previous research, as outlined in Chapters 3 and 4, has consistently found evidence for the “happy mood/stereotyping effect”. The finding that happy people are more

likely to engage in stereotyping is a counter-intuitive but robust effect. Explanations for the effect have focused on the role of information processing strategies and the motivation to avoid cognitive effort. As outlined in Chapter 3, happiness has been seen as an interfering affective response, automatically cuing positive material in memory, therefore resulting in cognitive overload for the perceiver (Bower, 1981, Sinclair & Mark, 1992). Happiness has also been conceptualized as information that leads the perceiver to believe that everything is “okay” and systematic thinking is unnecessary. Heuristic thinking is used when motivation for cognitive effort is low (Bodenhausen, 1993; Schwarz & Clore, 1983, Schwarz, 1990, 2001). Finally, happiness has been linked with the use of “general knowledge structures” (Bless, 2001; Bless, Clore et al., 1996), which include schemas, heuristics and stereotypes.

A reanalysis of these findings in terms of self-categorization theory’s approach to stereotyping in Chapter 5, revealed that previous research had been designed in such a way that the ingroup of participants was always positive and that this ingroup was implicit. Implicit ingroup membership has been shown to lower salience of the intergroup context in comparison to explicit group membership (Spears, 2002). Further, work by Rust (1995, in Dovidio et al., 1998) has shown that participants in a positive mood are more likely to rate themselves as members of a positive ingroup than those in neutral moods. The results of these studies are consistent with our argument that the happy mood/stereotyping effect is due to the relatively heightened salience of the intergroup context for those participants in happy moods compared to those in neutral or sad moods. Heightened salience for these participants derives from

the perceived fit between self-conception in terms of positive mood and self-categorization as a member of a positive ingroup.

The second study in the empirical program was therefore designed to test the above hypothesis that perceivers in a positive mood find enhanced fit in a positive ingroup context. This process, then, should increase the salience of the ingroup/outgroup categorization, thereby increasing levels of stereotyping for an outgroup target. Further, levels of self-stereotyping should also increase in line with the idea that perceivers are more likely to categorize themselves as members of a positive ingroup when in a positive mood. By holding constant the positive valence of the ingroup, and manipulating both mood and context, we should be able to replicate the happy/stereotyping effect when the context is intergroup. In other words, in the context of judging an outgroup member, both neutral mood and happy mood participants will stereotype the target. Stereotyping will be *enhanced* however, for the happy mood participants. Further, happy mood should enhance the identification of those participants with the positive ingroup, especially when that ingroup is explicitly compared to a relatively negative outgroup, i.e.: when rating an outgroup target.

In this study, all participants were allocated to a positive ingroup and asked to rate either an ingroup or outgroup member, and themselves, in terms of previously piloted attributes stereotypical of the two groups. An interpersonal condition was also included where participants rated a target whose group membership was not clearly

stated. Using a minimal group paradigm, participants' problem solving style as "underestimators" or "overestimators" was ostensibly established through a dot estimation task. False feedback on this task was used to place all participants in the relatively positive ingroup "underestimators". Participants then rated a target (someone they thought they would be working with at a later stage of the study), and themselves, after being placed into either a happy or a neutral mood. As in Study 1, ingroup bias measures were also included as a further indication of group-based behaviour.

It was predicted that both target ratings and self-ratings would be more stereotypical in the happy mood/target outgroup condition. It was also predicted that ingroup bias would be enhanced and that participants would rate themselves as less similar to their working partner in this condition. Participants were also expected to identify more with the positive ingroup in the happy/target out condition.

METHOD

Participants:

Participants (N=100) were 83 first year psychology students at the Australian National University who participated in exchange for course credit and 17 Year 10 students visiting the ANU from Daramalan College, Canberra. Participants ranged in age from 15 to 40 years with a mean age of 22.3 years. There were 74 females and 26 males.

Design:

The study was a 2 (mood: happy vs neutral) x 3 (comparative context: interpersonal, target in, target out) design with participants randomly allocated to conditions. Participants' ingroup was always positive.

Materials and Procedure:

Piloting of Materials: Fifty, second year social psychology students were enlisted to provide attributes that could be used to describe the two groups "underestimators" and "overestimators". Participants were told that previous research has found that people can be categorized in terms of their problem solving style as one of these two types. They were then given the same description of the groups as used in the subsequent study (see below). A Katz/Braly checklist was then provided and half the participants were asked to underline those attributes they thought could be used to describe an underestimator while half were asked to describe an overestimator. Participants were then asked to select the five words they thought were most descriptive of the group.

Frequencies were then calculated for each attribute for each group. The four attributes with the highest frequencies for underestimators and the four attributes with the highest frequencies for overestimators were chosen for use in the main study along with four attributes with the lowest frequencies overall. This method resulted in the attributes *impulsive, straightforward, quick-tempered* and *happy-go-lucky* being selected as consistent with overestimators, while *intelligent, ponderous,*

methodical and *imaginative* were selected as consistent with underestimators.

Neutral attributes were *sensual*, *evasive*, *kind* and *superstitious*.

Procedure: Participants were recruited to participate in a study about problem solving style and decision-making. When participants entered the room they were informed that two studies would actually take place. Firstly, participants' "problem solving style" would be assessed via a dot estimation task. While the experimenter was analyzing this task, participants would complete some pilot work for a future study by describing a life event that would be used to compile a Life Events Inventory. In reality, the life events task constituted the mood manipulation. Participants were told that after completing the life events task and having received feed back from the dot estimation task, they would continue on with the first experiment. Two separate consent forms were issued.

Dot estimation Task: Participants firstly completed a dot estimation task incorporating three trials. An array of dots was presented via overhead projector for 15 seconds and participants were asked to estimate the number of dots in the array. Participants were then given around 3-5 seconds to write their estimate on the response sheet before the next trial commenced. After three trials, participants were asked to turn over the response sheet and read the information on the back. This information constituted the negative/positive valence manipulation. Participants read that the study was interested in the effect of problem solving style and decision-making and that people can be categorized in terms of their problem solving style in

two basic ways. The categories of “overestimator” and “underestimator” were then introduced and described in the following way:

“Generally, overestimators tend to be fairly quick in their decision making and like to get things done - they tend to be finishers not starters. On the other hand, underestimators tend to take more time in their decisions and to work through possibilities in a creative way. It has been found in previous research that underestimators tend to rate slightly higher on intelligence tests, show good leadership qualities and usually do very well at university in comparison with overestimators.”

In the interpersonal condition participants then read that everyone’s individual problem solving style would be assessed and that later they would be working on some problem solving tasks in pairs. In the intergroup (target out and target in) conditions participants read that everyone’s problem solving style would be assessed and that later they would be working with either an ingroup member or an outgroup member. These groups were also told that we were particularly interested in comparing the outcomes of underestimators and overestimators on the tasks. All groups were told that they would fill out a pre-Phase Two questionnaire and a post-Phase Two questionnaire.

Mood manipulation: Participants were then asked to think about a life event that had happened to them that had made them either extremely happy (positive mood induction) or neither happy nor unhappy (neutral mood induction). As in Experiment One participants in the positive mood condition were told they had up to 15 minutes

to write about the happy event and that they should continue writing on the back of the sheet if they needed more space. The instructions asked them for a detailed and vivid description and to concentrate on exactly what happened and how it happened rather than on why it happened. Participants in the neutral mood condition were told that they had 5 minutes to complete the task, they were only given a few lines on which to write and they were asked to concentrate on why the event happened. All participants were asked to give their age and sex, and to respond to the question "Right now, how would you describe your mood?" on a 9-point Likert scale ranging from 1 (very sad) through 5 (neutral) to 9 (very happy).

During the time that participants were completing the mood induction procedure, the experimenter pretended to analyse the results of the dot estimation task. Before participants finished writing, they were handed the assessment of their problem solving style face down on the desk. They were instructed to continue the task they were engaged in and then, when finished, to immediately go on with the pre-Phase Two questionnaire for the first study. In this way, participants were given no time between conclusion of the mood manipulation and commencement of the stereotyping measures.

Stereotyping Measures: The cover sheet of the supposed assessment and pre-Phase Two questionnaire provided participants with the group manipulation. Participants firstly read that their dot estimation responses had been analysed and their problem solving style determined. In actual fact all participants were told that they were

underestimators, which provided them with a positive ingroup identity. Participants in the group conditions then read that they would be working with another person on a problem-solving task and that this person had either the same, or the opposite, problem-solving style to them. The words "SAME" and "OPPOSITE" were typed in capital bold face and one of the two words was manually struck through with pen. There was then a space in which the experimenter manually wrote either "underestimator" in the target in condition, or "overestimator" in the target out condition.

Participants in the interpersonal condition were simply told orally that they were all the same in this particular session and therefore we would simply divided them into pairs at the appropriate moment. The cover sheet for this condition told participants that they themselves were underestimators, however the section about whether their partner was of the SAME or OPPOSITE problem solving style did not appear and a dash was put in the space available for the identity of their working partner.

After participants read the cover sheet they were instructed to turn over and complete the pre-Phase Two questionnaire, which in reality constituted the stereotyping measures. Participants firstly completed three ingroup bias measures on separate 9-point Likert scales (1=not at all to 9=very much/very easy). These were: "how much are you looking forward to the next phase of this study?", "how much do you expect to like the person you will be working with?" and "how easy do you think it will be to work with this person?". Following the ingroup bias measures were 12 attributes

on separate 9-point Likert scales from 1=not at all to 9=extremely, that had been previously piloted as being consistent with underestimators, consistent with overestimators or neutral in regards to the stereotypes. Participants were asked to rate the extent to which each attribute could be used to describe “the person you are going to be working with”. Participants were then presented with the same 12 attributes and asked to rate the extent to which each attribute could be used to describe “yourself”. Two identification measures followed asking participants how similar they thought they were to the person with which they would be working and how much they identified with the group to which they had been assigned (underestimators or overestimators). Participants then gave their age and sex, and finally responded on 9-point bi polar scales to a set of five measures that described their present feelings such as bored/excited, tired/alert, and confident/not confident. Embedded within these items was very sad/very happy as a final mood manipulation check.

When all participants had finished this task they were debriefed and allowed to leave.

RESULTS

Mood Manipulation: Participants’ responses to the question “Right now how do you feel?” and the sad/happy item at the end of the questionnaire were analysed via one-way ANOVAs. Means and standard deviations are shown in Table 7.1 as a function of condition and response item. It can be seen that mood was successfully

manipulated in the first instance, with participants in the happy condition rating themselves as significantly happier than those in the neutral mood condition ($F(1,98)=11.6, p<.001$). As was evident in the first study, mood effects did not last very long with no significant differences between groups at the time of the second response ($F(1,98)=.01, p<.92$).

Table 7.1: Mean mood responses as a function of mood condition (standard deviations in parenthesis)

	Happy mood condition	Neutral mood condition
Mood response at time 1	6.44 (1.4)	5.63 (.97)
Mood response at time 2	5.83 (1.17)	5.85 (1.07)

Ingroup Bias measures: Responses to the three ingroup bias measures were analysed via MANOVA. No effects were found for the first two items, however a significant main effect for context was found for the item regarding how easy participants expected it would be to work with the target ($F(2,94)=9.05, p<.000$). Subsequent t-tests showed that participants in the target out condition ($M=5.26$) rated the target as significantly less easy to work with than participants in the target in condition ($M=6.13$), ($t(67)=2.78, p<.007$) or interpersonal condition ($M=6.52$), ($t(68)=4.25, p<.000$), see Table 7.2. No main effect for mood or context by mood interaction was found.

Table 7.2: Mean responses to the item “How easy do you think it will be to work with this person?” as a function of context (standard deviations in parenthesis)

	Target In	Target Out	Interpersonal
Mean response	6.13 (1.38)	5.26 (1.23)	6.51 (1.23)

Stereotyping measures: The predicted interaction was found, however, for the target and self-stereotyping measures. Ratings on items (attributes) that were descriptive of overestimators were subtracted from ratings on items that were descriptive of underestimators and averaged to derive a single stereotyping score for each participant. This was done for target ratings as well as self-ratings on the 12 attributes. In this way, a negative score corresponds to participants rating the target and/or themselves as an overestimator (outgroup member) while a positive score corresponds to rating the target and/or themselves as an underestimator (ingroup member). Mean stereotyping scores for both target ratings are shown in Table 7.3 as a function of condition. Mean stereotyping scores for self-ratings are shown in Table 7.4 as a function of condition.

Overall, there was no main effect found for the mood variable, however a significant effect for context was found ($F(2,94)=43.42, p<.000$) and the mood by context interaction was approaching significance ($F(2,92)=2.63, p<.07$). Scores were then analyzed separately as a function of mood condition.

As shown in Table 7.3, for neutral mood participants a significant effect for context was found ($F(2,54)=17.14, p<.000$). Specifically, there was a significant difference between target ratings in the target out condition ($M=-0.33$) compared to the interpersonal ($M=0.86$), ($t(38)=4.99, p<.000$) or target in ($M=1.45$), ($t(38)=5.05, p<.000$) conditions.

Table 7.3: Mean target stereotyping scores as a function of condition (standard deviations in parenthesis)

	Target in	Target out	Interpersonal
Happy	1.25(.86)	-1.09(1.32)	1.21(.61)
Neutral	1.45(1.40)	-0.33(.82)	0.86(.63)

That is, when the target is labeled as an overestimator, participants are rating the target in terms of overestimator attributes and when the target is labeled as an underestimator then participants are rating the target in terms of underestimator attributes. (It must be noted that in the interpersonal condition participants are also rating the target as an underestimator. Participants in this condition were told that they all had the same problem solving style, and that they personally were underestimators, therefore logically, the target must also be an underestimator even if that was not explicitly made clear.)

The results for the happy participants show an accentuation of the effect found for neutral participants. Again, a main effect for context was found ($F(2,40)=27.1, p<.000$) and subsequent t-tests found a significant difference between the target out condition ($M=-1.09$) and the other two conditions ($M=1.21$, interpersonal and $M=1.25$, target in) ($t(28)=5.97, p<.000$; $t(27)=5.49, p<.000$; respectively).

Because the mood x context interaction was predicted and the overall ANOVA revealed that this effect was approaching significance, it was decided to explore this more. Subsequent t-tests revealed a significant difference between target ratings for happy and the neutral participants but only in the target out condition ($M=-1.09$ happy, $M=-0.33$ neutral, $t(37)=2.2, p<.03$). Consistent with predictions, happy participants are stereotyping the target in terms of overestimator attributes more than neutral participants are in the target out condition.

Moving to self-ratings, as all participants were allocated to the positive ingroup underestimators, it would be expected that self-ratings would all be in the positive. This is what was found however, in the happy/target out condition, participants were even *more* likely to describe themselves as members of the ingroup. Overall, happy participants were much more likely to rate themselves as members of the positive ingroup ($M=1.22$ happy, $M=0.62$ neutral, $F(1,94)=6.93, p<.01$), and this is particularly so for the target out condition ($M=1.58$ happy, $M=0.28$ neutral, $F(1,37)=10.08, p<.003$). See Table 7.4.

Table 7.4: Mean self-rating scores as a function of condition (standard deviations in parenthesis)

	Target in	Target out	Interpersonal
Happy	1.10(.66)	1.58(1.57)	0.98(1.32)
Neutral	0.93(1.06)	0.28(0.98)	0.65(0.93)

Some rather contradictory results were found in regard to the identification measures. Firstly, for the item “How similar do you think you are to the person you will be working with?” both a main effect for mood and a main effect for context were found but not an interaction effect. Overall, neutral mood participants had significantly higher ratings on this item ($F(1,94)=5.63, p<.02$). Table 7.5 shows the pattern of means for this item.

Table 7.5: Mean responses for the item “How similar do you think you are to the person you will be working with?” as a function of condition (standard deviations are in parenthesis)

	Target In	Target Out	Interpersonal
Happy	5.39 (0.77)	4.44 (1.20)	5.21 (1.48)
Neutral	6.24 (1.03)	4.74 (1.51)	5.82 (0.95)

As stated above there was a main effect for context ($F(2,94)=9.44, p<.000$) and subsequent t-tests revealed that participants in the target out condition

($M=4.62, SD=1.39$) rated their would be working partner as significantly less similar to themselves than participants in either the target in ($M=5.87, SD=1.01$) ($t(67)=4.16, p<.000$) or interpersonal ($M=5.55, SD=1.23$) ($t(68)=2.93, p<.005$) conditions. This partially supports predictions.

Results for the item “How much do you identify with the group to which you have been assigned (underestimators/overestimators)?” were not in the direction predicted. No effect for mood was found, or a context by mood interaction. A main effect for context was found however, contrary to predictions, participants identified significantly less with their ingroup in the target out condition compared to the other two conditions ($F(2,94)=9.70, p<.000$), see Table 7.6.

Table 7.6: Mean responses for the item “How much do you identify with the group that you have been assigned to?” as a function of context. (standard deviations in parenthesis)

	Target In	Target Out	Interpersonal
Context	6.33 (1.06) ^a	4.92 (1.79) ^{ab}	6.35 (1.62) ^b

^a $t(67)=3.81, p<.000$

^b $t(68)=3.45, p<.001$

One explanation for this result could be that participants misunderstood the question. Indeed, the question was worded as follows “How much do you identify with the group that you have been assigned to (underestimator/overestimator)?” and upon examination of a sample of the raw data, it was found that some participants had

circled the “appropriate” category. A number of these participants had, however, circled the opposite category to themselves in line with the perception that the question related to their working partner when in the target out condition. This would then explain the finding of lower ratings in this condition. At the very least it is obvious that some participants were confused by this question and therefore the data in this case are ambiguous.

DISCUSSION

The results of this study supported predictions made and show strong support for the idea that it is a match between the perceiver's mood and the valence of the ingroup identification that heightens salience for happy perceivers. While context affected the way in which both target and self were described, being in a happy mood accentuated this effect. When participants believed that they were members of the group “underestimators” they described both themselves and their ingroup target in terms of the attributes of the “underestimator” stereotype regardless of their mood state. When they believed that the target was an outgroup member, they also described themselves in terms of their ingroup membership and the outgroup member in terms of the outgroup attributes. When they were in a happy mood, however, these descriptions were even more stereotypical than when they were in a neutral mood. Overall, happy participants were more likely to describe themselves in terms of their positive ingroup supporting the findings of Rust (1995, in Dovidio et al., 1998) however these ratings *increased* in the light of comparison with a member of

the negative outgroup. Further, descriptions of the target outgroup member also became more stereotypical when participants were in a happy mood state.

Participants' mood was successfully manipulated using the recall and write procedure however, as in the first study, this effect was short lived. Certainly by the time participants had finished the stereotyping measures there was no difference between groups on the mood manipulation check. This raises the issue of exactly when participants' mood stabilized after having been elevated. Giving participants no time between finishing the mood task and commencing the stereotyping measures ensures that mood effects are at least in action at the point at which they are told of their own group membership and that of their working partner. It is at this point that self and other categorization should occur, thus the impression of both self and other should be formed at this time, in line with previous information that has been supplied about the categories. The finding of the predicted interaction effect, rather than a main effect for context only, shows support for the contention that both mood and categorization were in action throughout both target ratings and self-ratings. It would appear that mood was successfully manipulated long enough for participants to complete all tasks.

We now turn to the results for the ingroup bias measures, which show only a mild effect for context and no mood or mood by context interaction. Specifically, outgroup members were seen as less easy to work with regardless of mood. It must be noted however, that ingroup bias is not displayed in all intergroup settings. As

stated in Chapter 5, ingroup bias, or outgroup derogation is confined to particular dimensions, in particular when the ingroup is threatened by the outgroup on that dimension (Turner, 1999). In this study, the ingroup was positive, especially in relation to the outgroup on the dimensions of intelligence, leadership and performance at university, dimensions that are important to the student participants. In this case, it can be argued that no ingroup bias needs to occur, as the ingroup is defined as being superior to the outgroup from the beginning. The lack of interaction effect here could be interpreted as simply reflecting happy mood participants' lack of need to engage in ingroup bias at any greater rate than neutral mood participants.

Interestingly, the similarity measure also showed no interaction effect. Participants rated themselves as significantly less similar to the target in the target out condition for both happy and neutral conditions. One explanation for this could be that when the intergroup context is salient, similarity to an outgroup target is already low. Similarity is, of course, a fairly broad concept and judgments could well be constrained by its lack of sensitivity. Again, as discussed in Chapter 5, positive distinctiveness is created through comparison with the outgroup on particular dimensions (Tajfel, 1981). Outgroup targets, therefore can be seen as reasonably similar to the self in some regards while being extremely dissimilar on dimensions of importance for ingroup definition. Simply asking for one rating of similarity may not have given happy mood participants the opportunity to show the required differential response to those in the neutral mood condition. This opportunity arises with the

stereotyping measure where particular attributes can be used to differentiate self as an ingroup member from the outgroup target.

Overall, these results expand on the findings of the first study and support the idea that it is not happy perceivers in particular that stereotype, rather *all* perceivers will stereotype when the context is an intergroup one. The results for the stereotyping measures, where the predicted interaction did occur, show that all participants were categorizing both themselves and the target in terms of their group membership and this effect is simply heightened in the happy/target out condition. This is illustrated by the fact that all participants describe both themselves and the target in the "appropriate" (imposed) minimal group terms, however, as predicted these ratings are significantly increased in the happy/target out condition.

Happy participants' increased self-definition as an ingroup member is convincing evidence for the hypothesis tested in this study, that happy perceivers experience increased fit between valence of self due to positive mood and valence of group when that group is positive, especially in comparison with a negative outgroup. These findings are not easily incorporated into an information processing account of mood and stereotyping. Previous research as outlined in Chapter 4, has generally found that happy perceivers will stereotype when neutral and/or sad perceivers will not. The explanation for this effect, that happiness affects our ability or motivation to think carefully about a target, is not supported by these results. Certainly when we find that *self-definition* is also affected by mood, it is difficult to reconcile this with

the idea that we are not thinking systematically about a target. When the target is the self, it would seem ludicrous to state that individuation information is not available or is unable to be used.

A better explanation of the results can be gleaned from a self-categorization theory approach where both outgroup target *and* self are defined in terms of social identity and therefore stereotyped in an intergroup context. As stated by Turner (1984), self definition in terms of a relevant ingroup (and therefore definition of dissimilar others as outgroup) is the *cause* of group behaviour, including stereotyping. In this case, we can see mood (part of our self definition within a particular context) as contributing to social behaviour via its affect on self-categorization.

This interpretation is not at odds with the ideas of Bless and colleagues in terms of their mood as information account (Bless, 2001). Mood *is* information, information that is used to help interpret the current psychological situation *as it pertains to self-definition*. It is used to make sense of and add meaning to social reality and this is a dynamic process. While we may be motivated to maintain positive mood (Isen, 1983; Sinclair & Mark, 1992) and a positive ingroup identity helps to achieve this, at the same time, positive mood helps to create fit between the positive ingroup and the sense of self and therefore to inform us in regard to the relevant self-categorization within a particular context.

This study, then, demonstrates clear support for the idea that mood mediates stereotype activation via its effect on the self-concept rather than its effect on information processing strategy. This leads us to consider the effects of negative mood and/or negative group valence on self-categorization and stereotyping. If happy mood increases salience of the intergroup context through increased fit with a positive ingroup then it would logically follow that negative mood would increase fit for a negative ingroup. In fact, a fit based account of mood and stereotyping would help to explain the lack of stereotyping effects for participants in negative moods in previous research. As stated earlier, the ingroup in previous studies has always been positive - at least in an implicit way - in comparison to a negative outgroup. This would result in reduced fit for participants in a negative mood, lack of self-categorization in terms of the implicit positive ingroup and therefore no stereotyping effects. If, however, the ingroup was explicitly negative in comparison to a positive outgroup, then this should create a higher level of fit between the ingroup and the perceiver's mood state. In the same way that happy mood informs the perceiver that any positive ingroup identity fits in terms of their sense of self, so a negative mood should inform them that a negative ingroup makes sense. It is this idea that is tested in the third study, presented in the next chapter.

CHAPTER 8

Study 3

The effects of positive and negative ingroup on happy and sad perceivers I

The first two studies in the empirical program have shown strong support for a re-conceptualization of the role of mood in stereotyping. In the first study, it was shown that stereotyping will occur when the context in which social judgments are made is an intergroup context. Further, mood had no effect. Consistent with self-categorization theory, participants stereotyped the target in terms of her outgroup membership when the context in which they were making judgments was intergroup and not interpersonal. Self-definition as either a fellow ingroup member or as a member of a different group to the target changed the way in which the target was described. This occurred whether participants were placed in a happy, neutral or sad mood.

In the second study, reported in the previous chapter, we found that, compared to neutral mood participants, happy mood enhanced the salience of the intergroup context, resulting in increased stereotyping in the happy mood condition when the

target was an outgroup member. Importantly, self-definition as a member of the positive ingroup was also increased in the happy mood/target out condition, supporting the idea that mood affects stereotyping of both self and others through its effects on self concept and self-categorization.

Although we have good support for the theoretical contentions of this thesis in the first two studies, we have isolated only happy mood effects in relation to a positive ingroup. We have done this because we believe that this is the reason for the robust finding of happy mood leading to stereotyping in previous literature. However, in order to fully examine the role of mood in stereotyping, we must also consider the possible effects of negative group membership on perceivers in happy moods.

Even more importantly, we believe that we need to examine the role of fit in relation to negative groups and negative mood. Following from our theoretical argument in relation to happy mood and positive ingroup membership, an hypothesis can also be derived concerning negative mood and negative ingroup membership. If happy moods create increased fit for members of positively valenced ingroups then will sad moods create increased fit for members of negatively valenced ingroups? If mood affects stereotyping via self-definition in terms of mood and ingroup valence then this process should be equally influential for sad as for happy mood.

As stated in the previous chapter, a fit based account of stereotyping and mood would help to explain the finding that sad and/or neutral mood participants have shown little

signs of stereotyping in previous research. When the ingroup is implicit, salience is lowered (Spears, 2002). When the ingroup is also positive, this reduces fit for participants in negative or neutral moods. The combination of lowered salience due to implicit group membership and reduced fit (which also lowers salience) results in negative mood participants being unable to find self-definition in the categorization at hand. The context for these participants then, is not an intergroup one. This results in no or lessened stereotyping in these conditions. Meanwhile, happy participants experience increased fit due to the positive valence of the ingroup even in the face of that ingroup being implicit. Happy participants therefore do find self-definition in the ingroup categorization and the context is experienced as an intergroup context for these participants, resulting in the expression of stereotypes relevant to the intergroup relationship. However, if the ingroup is *negative*, the opposite results should occur, with sad participants stereotyping rather than happy participants. Importantly, these results should be repeated on *self-stereotyping* measures with happy participants self-stereotyping more when the ingroup is positive and sad participants self-stereotyping more when the ingroup is negative.

In order to test both the impact of negative group membership on happy perceivers and the impact of positive and negative group membership on sad perceivers, a study was designed which crossed mood and ingroup valence. In this way we could examine the responses of both sad and happy perceivers to contexts in which both high and low fit should be experienced. The study was designed to make the ingroup

explicit in order to maximize the possible intergroup context and allow the effects of group valence and mood to be examined directly.

Participants were led to believe that they were participating in a study looking at the views and attitudes of first year psychology students. Real groups were used to enhance participants' level of identity with the ingroup and provide external validity to the study. The valence of the ingroup was manipulated via false feedback, at the group level, about an assignment that the students had recently completed. Participants were then asked a number of questions that included attribute ratings, similarity ratings and identity measures (Cameron, in press). Importantly, to measure self-definition, participants were asked to rate *themselves* in terms of the ingroup and outgroup attributes, as well as other ingroup members and outgroup members. As the groups were not in direct competition with each other, and due to the minor effects found for ingroup bias measures in the previous study, no ingroup bias items were included.

It was predicted that participants in the happy mood/positive ingroup condition, and those participants in the sad mood/negative ingroup condition, would stereotype both themselves and an outgroup target, in terms of the appropriate attributes, more than those participants in the happy mood/negative ingroup condition, or those in the sad mood/positive outgroup condition.

METHOD

Participants: Participants (N=58) were first year psychology students at the Australian National University, Canberra, who participated in exchange for course credit. Participants' age ranged from 17 years to 50 years with an average age of 22. There were 15 males and 43 females.

Design: This study was a 2(mood: happy, sad) x 2(group valence: positive ingroup, negative ingroup) design with participants randomly assigned to conditions.

Procedure: This study was divided into two phases. Phase one was designed to legitimate the cover story for the study. Phase two was the actual study itself. At the Australian National University in 2000, two first year psychology units were available. One of these was the unit Psychology AO1 (Introduction to Psychology) and the other was Psychology AO2 (Introduction to Organizational Psychology). Students at the university could enroll in one or both of these two units.

Phase One: In this part of the study, participants were approached during their normal laboratory session for Psychology AO1. Participants were told that the Division of Psychology was interested in tracking attitudes and performance in AO1 students for 2000 due to the fact that the unit AO2 was being run for the first time. The Division wanted to evaluate the decision to run AO2 in terms of its impact on the long-standing introductory unit AO1. Participants were told that at this stage in the

study they would simply fill in a questionnaire, giving information such as age, sex, degree course enrolment and reasons why they enrolled in AO1 and (if applicable) AO2. They were also told that some of them would be contacted by the experimenter later in the year to complete further questionnaires in order to track their ideas and thoughts throughout the course. Participants then went ahead and filled in the questionnaire. At this stage participants also filled in a Katz/Braly type checklist wherein they were asked to describe themselves by underlining as many attributes in the list as necessary and then choosing five attributes that they felt BEST described themselves.

Phase Two: Participants were contacted by phone to participate in the second phase of the study. These sessions were held in the experimental laboratory of social psychology in the Division of Psychology. Participants were told that they would complete a number of studies including the second phase of the AO1/AO2 study. Participants then completed a mood induction procedure under the guise of a study on “Memory for Emotive Events”. As per previous studies, they recalled and wrote about an event in their lives that had made them either extremely happy (positive mood induction) or extremely sad (negative mood induction).

Immediately following the mood induction procedure, participants were handed the questionnaire for phase two of the AO1/AO2 study and asked to read the front page only. The front page of this questionnaire constituted the group manipulation. Participants read a short paragraph stating that the experimenter was interested in

finding out more about their views and feelings about the courses. They read that all students doing AO1 only would now be referred to as “AO1’s” and those doing both AO1 and AO2 would be referred to as “AO2’s”. They were asked to indicate to which group they belonged by marking in the appropriate box. Two boxes were supplied with the words “I belong to the group “AO1’s” beside one of the boxes and “I belong to the group “AO2’s” beside the other. In actual fact, ALL participants used in this stage were enrolled in AO1 ONLY and therefore all participants belonged to the group “AO1’s”

Before participants went on to complete the stereotyping measures, they were given “feedback” on the first phase of the study. This feedback consisted of supposed descriptions of the two groups AO1 and AO2, derived from the Katz/Braly checklist that participants had completed in Phase One of the study, and a comparison of performance of the two groups in the first written assignment. The ten most commonly chosen attributes from the checklist were arbitrarily split into two lists of five attributes each. Participants were told the lists consisted of the five most commonly chosen attributes for each group, as chosen by the group members themselves. The attributes supposedly most commonly chosen by AO1’s were **intelligent, sensitive, kind, individualistic and courteous**. The attributes supposedly most commonly chosen by AO2’s were **honest, ambitious, practical, generous, and scientifically minded**.

The feedback about performance constituted the negative/positive group manipulation. Half the participants were shown a bar graph that depicted AO1's as having done better than AO2's in the first assignment (positive group manipulation) and half were shown a graph depicting AO2's as having done better (negative group manipulation). After presentation of the false feedback, participants were instructed to turn the page and complete the rest of the questionnaire.

Initially, participants answered two questions designed as a group membership manipulation check. On 9-point Likert type scales, participants rated how similar they felt to **AO1's in general**, and to **AO2's in general**. The main stereotyping measures followed and were presented as shown below:

"Below are listed 10 attributes that were found to be most common in the descriptions that you supplied in Phase One. Please place a mark on the line below the attribute at the spot that best indicates how descriptive the attribute is of **you, other AO1's and other AO2's**.

For example, if the attribute is "friendly" and you see yourself as very friendly, other AO1's as very friendly and AO2's as somewhat friendly, then you would mark the line like this:

	AO2's	AO1's	me
not at all friendly			very friendly

Now please answer for the following attributes:"

The ten attributes used as false feedback were then presented as shown above.

A number of measures designed as identity checks were then completed. Firstly, participants were presented with four diagrams that represented four possible levels of self-definition as an ingroup member for the group AO1. The diagrams contained two circles that gradually became interlocked over the four presentations. Participants were asked to tick the diagram that represented how much they felt they were a part of the group "AO1".

Following this, six items taken from Cameron's three-factor model of social identification (Cameron, in press) were presented on 9-point Likert scales. These were:

I have a lot in common with other AO1's

I feel strong ties to other AO1's

I often think about the fact that I am an AO1

In general, being an AO1 is an important part of my self image

In general, I'm glad to be an AO1

Generally, I feel good when I think about myself as an AO1

Participants also responded to a question about their major assignment. Participants read that this assignment (due later in the year) may be presented as a group project. They were asked to rate their level of agreement with the idea of a group project, and to nominate what group of people they would prefer to work with: AO1's only, AO1's and AO2's, AO2's only.

Participants then completed three items asking them to comment on the course (AO1) so far, and finally, gave their age and gender. When all participants were finished, they were debriefed and allowed to leave. Participants in the negative mood condition were required to complete a positive mood induction procedure before leaving.

RESULTS

Mood manipulation: Mood was successfully manipulated with those participants in the happy mood condition rating themselves as significantly happier ($M=6.88, SD=1.26$) than those in the sad mood condition ($M=3.31, SD=1.35$) ($F(1,35)=72.1, p<.000$).

Similarity measure: There were no effects found for either group valence, mood or the group by mood interaction on the two items asking participants how similar they felt to AO1's in general and AO2's in general.

Group inclusion: A main effect for mood was found for the item "Which diagram represents how much you feel you are part of the group AO1?". This item was scored according to the number of the diagram selected. This resulted in a score from 1 to 4 with 1 representing the diagram showing the participant as not included in the group AO1, and 4 representing the diagram showing the participant as completely included in the group AO1. Happy participants rated themselves as feeling more part

of the group AO1's, ($M=2.71, SD=.85$) than sad participants ($M=2.18, SD=.73$) and this difference was significant ($F(1,35)=4.6, p<.039$).

Identity measures: There was also a main effect of mood found for one of the identity measures "I feel strong ties to other AO1's". Happy participants rated themselves higher on this item ($M=5.29, SD=1.86$) than sad participants ($M=3.86, SD=1.67$) with this difference significant ($F(1,35)=6.07, p<.019$)

Group project measures: There were no effects for the group project measures.

Stereotyping measures: Stereotyping scores were derived for each participant from their responses on the attribute lines. Participants were asked to draw vertical lines representing three targets: themselves (self), other AO1's (ingroup), and AO2's (outgroup) on sets of horizontal lines under each of the attributes. The distance in millimetres from the beginning of the horizontal line to where the participant's response crossed that line, became the raw score for that attribute in relation to each of the three targets. In this way, each attribute rendered a score for self ratings, ingroup ratings and outgroup ratings for each participant, with lower scores meaning that the attribute was less likely to describe the target.

These raw scores were then made into composite stereotyping scores in the same manner as in previous studies. Scores for attributes consistent with the outgroup were summed and averaged and taken from the summed, averaged attributes consistent

with the ingroup. Again, in this way, a positive score corresponds to the participant describing the target (themselves, other AO1's, AO2's) as an ingroup member, while a negative score corresponds to the participant describing the target as an outgroup member. These three dependent measures were then analysed via a mood x ingroup valence x ratings target Manova with repeated measures on the last factor.

No between participants effects were found for either self ratings, ingroup ratings (other AO1's) or outgroup ratings (AO2's) for mood, ingroup valence or the mood x group interaction. The within- participants analysis, however, found a significant main effect for rating target with both self ratings ($\bar{M}=0.613$) and ingroup ratings ($\bar{M}=0.21$) being significantly different to outgroup ratings ($\bar{M}=-0.66$) ($t(39)=3.91, p=.000$ and $t(39)=4.23, p=.000$, respectively). This analysis shows that all participants are differentiating themselves, and their ingroup, from the outgroup with self ratings and ingroup ratings in the direction of ingroup attributes (positive score) and outgroup ratings being in the direction of outgroup attributes (negative score). In other words, all participants are stereotyping.

Further analysis was then carried out to examine the consistent AO1 attributes and the consistent AO2 attributes separately. New stereotyping scores were derived for each participant by summing, averaging and dividing by ten, each set of consistent attributes. Each participant then had a self-stereotyping score for AO1 attributes, an ingroup stereotyping score for AO1 attributes and an outgroup stereotyping score for AO1 attributes, as well as a self, ingroup and outgroup score for AO2 attributes.

These scores were then subjected to two, separate (AO1, AO2) mood x ingroup valence x rating target ANOVA's with repeated measures on the last factor.

The analysis for AO2 consistent attributes revealed only a significant main effect for rating target. T-tests showed that participants' ratings of the outgroup ($\underline{M}=11.14$) were higher than their ratings of either self ($\underline{M}=10.55$) ($t(40)=1.9, p<.06$) or ingroup ($\underline{M}=10.67$) ($t(40)=2.52, p<.02$). All participants were rating the outgroup "AO2's" higher on outgroup attributes than either the self or the ingroup. Again, this is evidence of stereotyping on the part of all participants.

The analysis for AO1 consistent attributes was more interesting however, revealing a significant main effect for mood with happy participants ($\underline{M}=11.32$) having generally higher ratings over all targets than sad participants ($\underline{M}=10.51$) ($F(1,37)=4.59, p<.039$). There was also a significant main effect found for rating target with self ratings ($\underline{M}=11.22, \underline{SD}=1.39$) higher than ingroup ratings ($\underline{M}=10.95, \underline{SD}=1.36$) ($t(40)=2.15, p<.038$) and ingroup ratings higher than outgroup ratings ($\underline{M}=10.45, \underline{SD}=1.35$) ($t(40)=4.19, p<.000$). However, these main effects were qualified by a significant mood x rating target interaction. Means and standard deviations are shown in Table 8.1.

Table 8.1: Means and standard deviations for self, ingroup and outgroup stereotyping scores for AO1 consistent attributes as a function of mood and rating target.

	Happy	Sad
Self ratings	11.96 (1.27)	10.64 (1.23)
Ingroup ratings	11.35 (1.24)	10.63 (1.38)
Outgroup ratings	10.66 (1.48)	10.28 (1.24)

As can be seen by the pattern of means above, all participants are stereotyping in terms of AO1 attributes. In the happy mood condition participants' self ratings are significantly higher than their ingroup ratings which are significantly higher than outgroup ratings, ($t(17)=2.62, p<.018$) and ($t(17)=3.53, p.003$) respectively. Happy participants are stereotyping themselves and their ingroup more in terms of ingroup consistent attributes than the outgroup. Sad participants' self ratings and ingroup ratings are also significantly higher than outgroup ratings ($t(17)=2.72, p<.012$) and ($t(17)=2.44, p<.023$) respectively. So, sad participants are also stereotyping themselves and their ingroup more in terms of ingroup consistent attributes than the outgroup. However, there are also significant differences between self ratings for happy participants and self ratings for sad participants ($t(39)=3.34, p<.002$). Further, the difference between ingroup ratings for these two conditions was approaching significance ($t(39)=1.73, p<.09$) while there was no significant difference between outgroup ratings for sad and happy participants ($t(39)=.86, p<.39$). Therefore, both

happy and sad participants show evidence of stereotyping but this effect is enhanced for happy participants, significantly so for their self ratings.

DISCUSSION

Results for this study did not support the specific predictions made. Although effects were found for the mood variable, no effects were found for the group valence variable. Further, within-subjects analysis revealed that although participants were distinguishing between themselves and the outgroup, there was no effect for positivity or negativity of the ingroup. It was obvious from the results that participants were aware of the intergroup nature of the context in which they were making judgments, however the manipulation of ingroup valence was apparently ineffectual.

A main effect for mood was found on both the group inclusion measure and the item "I feel strong ties to other AOI's". Although factor analysis was not carried out to test this assertion, it is clear that these items are similar in terms of the concept that they are tapping into – higher group inclusion ratings would naturally link to a statement about ties to the ingroup. Happy participants rated themselves as feeling more a part of their ingroup, and as having strong ties to other members of their ingroup regardless of the valence of that group. Although these results support the work of Isen, in that positive mood was found to mediate a greater responsiveness to the intergroup context (Dovidio, et al., 1998), the work in question has not

specifically investigated negative ingroups. The finding that happy participants showed greater ties to the ingroup in this study may mean that negative ingroups are not a problem for happy people, or it may point to the failure of the group valence manipulation. It may be that the ingroup was defined as positive in both conditions, regardless of the negative feedback given to participants. Unfortunately, in this study, we do not know which of these processes is at play.

Results on the rating scales do not help to resolve this issue. It is clear from the results here, that the intergroup context was salient for all participants. In all cases, self-ratings and ingroup ratings reflected self and ingroup definition in terms of the group “AO1’s”, outgroup ratings reflected definition in terms of the outgroup attributes. All subjects were self-stereotyping and stereotyping the outgroup, in line with the context being explicitly intergroup. This result reflects findings in the first study in the series and adds weight to the general argument that we stereotype when the context is intergroup rather than interpersonal. In other words, as stated in self-categorization theory, stereotyping is a product of self-definition at the social level of identity.

The dilemma for this study, however, is that for ingroup consistent attributes, happy participants were self-stereotyping more than sad participants. Again, this shows that happy participants were content to self-define in terms of the ingroup even when the ingroup was purportedly negative. As with the measures discussed above, is this an indication that happy people are just more “groupy” than sad people, or that the

group valence manipulation failed? Was the ingroup being defined positively in all conditions, increasing fit for happy perceivers?

In this study participants chose the dimensions on which they later stereotyped both themselves and the outgroup. Examining the particular attributes used, we can see that both ingroup and outgroup attributes are positive. Group valence was manipulated via performance on a task, not via the stereotypic descriptions presented. It is possible that the ingroup was being defined in positive terms in all conditions and that the false feedback regarding performance was disregarded. Comments by participants during debriefing revealed that the external validity of the study was very high. Participants completely believed the cover story and the feedback given. We can be sure, therefore that participants actually believed that the ingroup had performed less well than the outgroup on an important task in the negative ingroup condition. What is clear, then, is that lower performance on a task was not a strong enough manipulation to create a negative ingroup definition.

We may find some explanation for this if we re-examine the tenets of social identity theory. As outlined in Chapter 5, SIT investigated group relations and as part of that investigation Tajfel and colleagues (Tajfel & Turner, 1979; Turner, 1981, Turner & Brown, 1978) explored the responses of group members to lowered status of the ingroup. How do people cope with membership of a low status group? What strategies might they employ in order to achieve positive distinctiveness under

conditions of low status? SIT presents a number of strategies that group members can use depending on the particular intergroup relations involved.

Where the boundaries of the groups are permeable, group members may be able to use individual mobility strategies and simply try to pass themselves off as a member of the more prestigious group, or indeed actually change their membership of one group to another. Where boundaries are impermeable, change of group membership is not possible and strategies are focused on redefining the ingroup or attempting to change the status differentials. If status relations are seen as unstable or illegitimate then some sort of collective social action may result whereby members of the lower status group try to “overthrow” the status of the more prestigious group. If, on the other hand, status relations are stable and seen as reasonably legitimate, lower status group members may try to change the way in which the ingroup is defined in order to achieve positive distinctiveness on some dimension other than the dimension that defines status. For example, workers in a factory, while obviously lower in status than managers on the dimensions of income and company prestige, may define themselves as being more friendly and harder working than the higher status manager outgroup. This is known as social creativity.

In the present study, when the ingroup was defined as negative on the dimension of performance, participants may have disregarded this information as unimportant for ingroup definition. It should also be noted that the task in question was not a group task, but an individual one. Group performance was defined by the average of the

individual performances. It is possible that participants may have disregarded this information in terms of their own performance and individuated *on this particular dimension*. SIT proposes that perceivers are motivated to seek positive distinctiveness for the ingroup in comparison to the outgroup (Turner, 1981). In this study, positive distinctiveness was not available via the performance feedback and therefore was sought elsewhere. This is especially likely when stereotypical information presented to them allowed these participants to define themselves positively on ingroup attributes rather than ingroup performance. On these attributes they could define themselves as more positive than the outgroup even when the outgroup had performed better on the task, again remembering that the task in question was actually an individual task and could possibly be disregarded as diagnostic of either the ingroup or the outgroup.

If, in this study, the group valence manipulation did not achieve the desired outcome, we have the situation where happy perceivers are able to define the ingroup positively and therefore find increased fit between the ingroup and their self-definition in terms of their current mood. We have simply replicated the “happy mood/stereotyping” effect. However, due to the explicit nature of the intergroup context, sad perceivers were also self-defining in terms of their social group membership and therefore exhibiting stereotypic responses. Happy mood was enhancing this effect. If the ingroup was positive for sad perceivers, then the predicted increased fit for sad participants in a negative ingroup did not occur. It

would appear that participants in this study did not consider themselves to be in a negative ingroup in any condition.

While these results show support for our general contention that stereotyping is a product of self-categorization at the social level of identity, we have failed to isolate the specific effects of a negative ingroup on either happy or sad perceivers. This investigation must be pursued before we are able to state that we have conclusive support for the fit based approach to the role of mood in stereotyping. Therefore, it is necessary to find a way to manipulate negativity of the ingroup. From SIT we can see that a negative ingroup can be re-defined in positive terms through the use of particular strategies that may change the intergroup relationship or the dimensions on which ingroup members self-define. In the next study, therefore we need to present participants with a negative definition of the ingroup that will be difficult to challenge or redefine. The stereotypic dimensions which define the ingroup must be stable and seemingly legitimate as well as negative in comparison to a positive outgroup. This was the basis on which the fourth and final study in the series was designed. This study is described in the following chapter.

CHAPTER 9

Study 4

The effects of positive and negative ingroup on happy and sad perceivers II

In the previous chapter, we presented a study in which we attempted to manipulate the valence of the ingroup in order to test the prediction that happy perceivers find increased fit in terms of a positive ingroup and that sad perceivers find increased fit in terms of a negative ingroup. Results indicated that the group valence manipulation was not successful and various reasons for this were discussed.

According to SIT, group members strive for positive distinctiveness and various strategies are available to enable positive self-definition via social identity when that identity is linked to a negative ingroup. In the previous study, valence of the group was manipulated with false feedback about group performance on a task. It was noted that the task was actually an individual task and therefore could possibly be disregarded as information relevant to group definition. In this case, the ingroup could be defined positively in every condition, regardless of the false feedback, by being defined according to the ingroup stereotype, which was positive. Results

revealed that although participants were distinguishing between themselves, the ingroup and the outgroup in terms of ingroup defining attributes, happy perceivers were showing enhanced effects in line with greater self-definition as a positive ingroup member. What was needed was a way to create a negative ingroup that would be difficult to disregard or redefine as positive.

It was decided therefore, to use minimal groups as the basis for group definition. As in Study 2, outlined in Chapter 7, a dot estimation task was used to establish the group membership of participants. Again, underestimators were described as more intelligent and creative, with good leadership skills and as being more likely to do well at university than overestimators. In this way, the groups in question were negative or positive on dimensions that were stable, legitimate (purportedly through previous research) and impermeable. Participants were again asked to rate themselves and an outgroup member. Participants also read that the experimenters were particularly interested in comparing the outcomes of the two groups on problem solving tasks, setting up an explicitly competitive context. The three ingroup bias measures from Study 2 were included to tap into this competitive relationship.

Following on from our theoretical approach outlined in Chapter 5 and tested in Study 3, it was hypothesised that those participants in the happy mood/positive ingroup condition and those participants in the sad mood/negative ingroup condition would experience heightened salience of the intergroup context due to the fit between self-definition as an ingroup member and self-definition in terms of current mood state.

We therefore predicted that participants in these conditions would show higher levels of stereotyping for both target and self than those participants in the happy mood/negative ingroup and the sad mood/positive ingroup conditions.

METHOD

Participants:

Participants (N=50) were 29 first year psychology students at the Australian National University who participated in exchange for course credit; 15 senior students from St Clare's College, Canberra; and 6 year 12 students from Canberra College, Woden. Participants ranged in age from 16 to 40 years with a mean age of 19.4 years. There were 40 females and 10 males.

Design:

The study was a 2 (mood: happy, sad) x 2 (ingroup valence: positive, negative) design with subjects randomly allocated to conditions.

Materials and Procedure:

Participants were recruited to participate in a study about problem solving style and decision-making. When participants entered the room they were informed that two studies would actually take place. Firstly, participants' "problem solving style" would be assessed via a dot estimation task. While the experimenter was analyzing this task, participants would complete some pilot work for a future study by

describing a life event that would be used to compile a Life Events Inventory. In reality, the life events task constituted the mood manipulation. Participants were told that after completing the life events task and having received feed back from the dot estimation task, they would continue on with the first experiment. Two separate consent forms were issued.

Dot estimation Task: Participants firstly completed a dot estimation task incorporating three trials. An array of dots was presented via overhead projector for 15 seconds and participants were asked to estimate the number of dots in the array. Participants were then given around 3-5 seconds to write their estimate on the response sheet before the next trial commenced. After three trials, participants were asked to turn over the response sheet and read the information on the back. This information constituted the negative/positive valence manipulation. Participants read that the study was interested in the effect of problem solving style and decision-making and that people can be categorized in terms of their problem solving style in two basic ways. The categories of “overestimator” and “underestimator” were then introduced and described in the following way:

“Generally, overestimators tend to be fairly quick in their decision making and like to get things done - they tend to be finishers not starters. On the other hand, underestimators tend to take more time in their decisions and to work through possibilities in a creative way. It has been found in previous research that underestimators tend to rate slightly higher on intelligence tests, show

good leadership qualities and usually do very well at university in comparison with overestimators.”

Participants read that everyone’s problem solving style would be assessed and that later they would be working with either an ingroup member or an outgroup member on some problem solving tasks. They were also told that we were particularly interested in comparing the outcomes of underestimators and overestimators on the tasks and that they would fill out a pre-Phase Two questionnaire and a post-Phase Two questionnaire.

Mood manipulation: Participants were then asked to think about a life event that had happened to them that had made them either extremely happy (positive mood induction) or extremely sad (negative mood induction). Participants were told they had up to 15 minutes to write about the event and that they should continue writing on the back of the sheet if they needed more space. The instructions asked them for a detailed and vivid description and to concentrate on exactly what happened and how it happened rather than on why it happened. All participants were asked to give their age and sex, and to respond to the question “Right now, how would you describe yourself?” on a 9-point Likert scale ranging from 1 (very sad) through 5 (neutral) to 9 (very happy). Participants also responded to the question “How much do you agree with this statement: “At this moment, I feel good about myself”?” on a 9-point Likert scale ranging from 1 (totally disagree) to 9 (totally agree).

Note on mood manipulation: After three of the initial sessions were run it was noted that the mood manipulation was not having the required effect. At this stage 11

participants had been allocated to the sad condition and eight participants to the happy condition. It was decided to change the cover story for the mood manipulation task from Life Events Inventory to Cognitive Mood Task as had been used successfully to manipulate sad and happy mood in the first study. For the remaining participants then, instructions were that they would complete a cognitive mood task in order to investigate further Beck's Cognitive Theory of Depression in normal populations (see Method, Study 1). They then wrote about a life event and responded to the question "Right now, how would you describe your mood?". All other aspects of the task remained the same.

During the time that participants were completing the mood induction procedure, the experimenter pretended to analyse the results of the dot estimation task. Before participants finished writing, they were handed the assessment of their problem solving style face down on the desk. They were instructed to continue the task they were engaged in and then, when finished, to immediately go on with the pre-Phase Two questionnaire for the first study. In this way, participants were given no time between conclusion of the mood manipulation and commencement of the stereotyping measures.

Stereotyping Measures: The cover sheet of the supposed assessment and pre-Phase Two questionnaire provided participants with the group manipulation. Participants firstly read that their dot estimation responses had been analysed and their problem solving style determined. Half the participants were told they were underestimators

(positive ingroup) and half were told that they were overestimators (negative ingroup). Participants then read that they would be working with another person on a problem solving task who had either the same, or the opposite, problem solving style to them. The words SAME and OPPOSITE were typed in capital bold face and one of the two words was manually struck through with pen. There was then a space in which the experimenter manually wrote either “underestimator” or “overestimator”. All participants were, in fact, told that they would be working with an outgroup member – someone who had the opposite problem solving style to themselves.

After participants read the cover sheet they were instructed to turn over and complete the pre-Phase Two questionnaire, which in reality constituted the stereotyping measures. Participants firstly completed three ingroup bias measures. These were: “How much are you looking forward to the next phase of this study?”; “How much do you expect to like the person you will be working with?” and “How easy do you think it will be to work with this person?”. Following the ingroup bias measures were 12 attributes on separate 9-point Likert scales that had been previously piloted as being consistent with underestimators, consistent with overestimators or neutral in regard to the stereotypes. Participants were asked to rate the extent to which each attribute could be used to describe “the person you are going to be working with”. Participants were then presented with the same 12 attributes and asked to rate the extent to which each attribute could be used to describe “yourself”. Two identification measures followed asking participants how similar they thought they were to the person with which they would be working and how much they identified

with the group to which they had been assigned (underestimators or overestimators). Participants then gave their age and sex, and finally responded on 9-point scales to a set of five measures that described their present feelings such as bored/excited, tired/alert, confident/not confident. Embedded within these items was very sad/very happy as a final mood manipulation check. Participants also responded to the statement "At the moment, I feel good about myself" for a second time.

When all participants had finished this task they were debriefed and allowed to leave. Those participants who had completed a negative mood manipulation were asked to complete a happy manipulation prior to leaving.

RESULTS

Mood Manipulation: As was outlined above, the mood induction for this study was not wholly successful. A change of instructions part way through the study helped to overcome this problem but evidence of "flip-over" effects was still found. Some participants in the happy mood condition actually rated themselves as being at the sad end of the scale, while some participants in the sad mood condition rated themselves as being happy (see Strack, et al., 1985 for a discussion of possible contrast effects with this mood manipulation). For this reason, mood was analysed according to participants' *actual* mood response and not according to condition. In this way, it can be certain that participants were actually experiencing the valence of mood that was intended. Participants were allocated to either the sad or happy

condition by way of a median split for the questions “Right now, how would you describe your mood?” (mood check after change of instructions) and “Right now, how would you describe yourself?” (mood check before change of instructions). This variable was then labelled “realmood” and all other analyses were conducted using this as the independent variable for mood.

Ingroup Bias Items: No effects were found for the ingroup bias items whether these were analysed separately or together.

Stereotyping score for target ratings: As in Study Two, a stereotyping score for target ratings was derived for each participant. Responses for those items (attributes) that were descriptive of over-estimators were summed and averaged then taken from the summed, averaged responses for those items that were descriptive of under-estimators. In this way, a positive score corresponds to participants rating the target as an under-estimator (positive group member) while a negative score corresponds to rating the target as an over-estimator (negative group member). This score was then analysed via ANOVA and a main effect for group valence was found ($F(1,46)=19.97, p<.000$). Means and standard deviations are shown in Table 9.1.

Table 9.1: Means and standard deviations for target stereotyping scores as a function of condition

Mood Valence	Group Valence of Participant	
	Positive (unders)	Negative (overs)
Positive (Happy)	-.40 (1.48)	1.72 (1.44)
Negative (Sad)	-.63 (1.56)	1.22 (1.77)

It can be seen that those participants in the positive group, under-estimators, rated the target as an over-estimator. Further, those in the negative group, over-estimators, rated the target as an under-estimator. T-tests revealed that these differences were significant both for happy ($t(22)=3.55, p<.002$) and sad participants ($t(24)=2.84, p<.009$). This is in keeping with the target always being an outgroup member. There was no effect found for mood or the group by mood interaction. Again, as in other studies, we have evidence that all participants are stereotyping the outgroup target in response to the explicit intergroup context.

Stereotyping score for self-ratings: A stereotyping score was also computed for self-ratings in the same way as for target ratings. Again, this means that a positive score indicates the participant rated themselves as under-estimators and a negative score indicates the participant rated themselves as over-estimators. These scores were then analysed via ANOVA and a main effect was found for group valence ($F(1,46)=7.05, p<.01$). The group by mood interaction effect was also approaching

significance ($F(1,46)=3.25, p<.07$) and upon further investigation some interesting findings appeared. Means and standard deviations are seen in Table 9.2.

Table 9.2: Means and standard deviations for self-stereotyping scores as a function of condition

Mood Valence	Group Valence of Participant	
	Positive (unders)	Negative (overs)
Positive (Happy)	1.00 (1.82)	.61 (1.1)
Negative (Sad)	1.25 (1.39)	-.77 (1.89)

As can be seen above, sad mood participants are quite willing to rate themselves according to their group allocation ($\underline{M}=1.25$, positive) and ($\underline{M}=-0.77$, negative) with this difference being significant ($t(24)=3.13, p<.005$). The happy participants however, while willing to rate themselves in terms of underestimator attributes in the positive (underestimator) condition, are not describing themselves as overestimators when they are allocated to that group ($\underline{M}=1.00$ positive, $\underline{M}=0.61$ negative, $t(22)=0.61, ns$). It would seem that while sad perceivers are willing to describe themselves in terms of a negative ingroup, happy perceivers are not.

To further investigate these self-descriptions, within subjects t-tests were conducted on participants' target and self-descriptions within each condition. Means and standard deviations for this analysis are shown in Table 9.3.

Table 9.3: Means and standard deviations for target and self-ratings as a function of group valence and mood.

Mood Valence	Ratings	Group Valence	
		Positive	Negative
Happy	Target	-0.40 (1.48)	1.72 (1.44)
	Self	1.00 (1.82)	0.61 (1.1)
Sad	Target	-.063 (1.56)	1.22 (1.77)
	Self	1.25 (1.39)	-0.77 (1.89)

The above analysis examines participants' differentiation between self and target. It can be seen that participants differentiated themselves from the target (an outgroup member) in all but one condition – the happy mood/negative group condition. Significant differences were found between target ratings and self-ratings for sad participants in the positive group condition ($t(13)=-5.4, p<.000$) and in the negative group condition ($t(11)=2.69, p<.021$). A significant difference was also found for happy participants in the positive group condition ($t(12)=-2.96, p<.012$) but not for happy participants placed in the negative group ($t(10)=1.86, ns$). Happy participants were not differentiating themselves from the target outgroup member when they were placed in a negative ingroup.

DISCUSSION

The results of this study provide strong support for the prediction that happy perceivers find increased fit as members of a positive ingroup. Happy participants placed into a positive ingroup displayed stereotyping of both an outgroup target and themselves. Interestingly, when placed into a negative ingroup, happy participants were willing to stereotype the positive outgroup target, but they were not willing to stereotype themselves in terms of their negative group membership. In this condition, self/target ratings were not significantly different and, in fact, happy participants were describing themselves in terms of positive outgroup attributes. This result indicates again, as in Study 3, that the search for positive distinctiveness is paramount for happy perceivers.

Results also showed that sad perceivers find fit in a negative group membership. When placed in a negative ingroup, sad perceivers were quite willing to describe themselves in terms of the stereotype for that group. Self/target ratings indicated that sad perceivers were differentiating themselves from the outgroup target and accepting membership in the negative ingroup. This result is important as it could be expected that this effect would be extremely difficult to produce. Given the obvious propensity for group members to strive for positive distinctiveness, the finding that sad participants accepted their negative group membership is very strong support for our fit hypothesis.

These results are tempered somewhat by the finding that sad perceivers in a positive ingroup also stereotyped self and outgroup target, however this result may also be explained through the search for positive distinctiveness. We discuss this in more detail below.

The results of this study raise some important points for this thesis. Firstly, we find in this study that all participants were willing to stereotype an outgroup target regardless of group valence or mood, simply as a response to the explicit intergroup context within which they were making judgments. These results mirror those found in Studies 1 to 3, and strongly support a conceptualization of stereotyping as being the product of self-categorization in terms of the social level of identity. In each of the studies in this program, when the intergroup context was made salient, when participants were responding in terms of their group memberships, stereotyping of the outgroup target was evident. These results do not support an interpretation of stereotyping as stemming from cognitive overload or the need to conserve cognitive energy. In particular, these results do not support the notion that stereotyping occurs due to the use of heuristic processing strategies or the reliance on general knowledge structures by happy perceivers. Evidence of sad perceivers stereotyping is difficult to explain via these theoretical approaches.

Further, stereotyping in sad participants in this study is inconsistent with conclusions made in previous research when such a finding has arisen. Previous research has discussed stereotyping in sad moods as being caused by mood-congruency effects

(Isen, 1984; Bower, 1981, 1991). Sad mood results in the accessing of negative thoughts in memory. This leads to direct access of stereotypes (given the assumption that stereotypes are bad and inherently negative), or alternatively, flavours the currently processed information in a negative direction. Sad mood, therefore, results in negative appraisals of outgroup members. In this study, however, sad mood participants rated outgroup targets that were members of both negative and positive outgroups. This result does not sit well with a mood congruency explanation. Neither does it sit well with the idea that sad mood perceivers use outgroup derogation to maintain their mood (Forgas, 1995) or to enhance their self-esteem (Esses & Zanna, 1995).

The most interesting results of the present study however, are those found on the self-ratings measures. As stated above, sad participants in the positive ingroup condition self-stereotyped in terms of that ingroup. This is not perhaps such a surprising result when considered in light of the search for positive distinctiveness. Although negative mood state and positive ingroup membership result in a mismatch between self-definition in terms of mood and self-definition in terms of social identity, it is understandable that participants would use social identity to create a positive self-image. It is plausible, in fact, that being told you are a member of the “better” group could immediately cancel the effects of the sad mood manipulation. As mood manipulations are short-lived in the first place, trying to decipher whether participants’ mood improved due to natural attrition or allocation into the positive ingroup is difficult. In either case, however, the finding that sad participants are

willing to accept a positive ingroup membership is not problematic for the study but certainly hints at a more complex interaction of variables than predicted.

What is a more important finding, however, is that sad participants accepted their negative group membership and self-stereotyped as a member of this group. As mentioned above, this finding should be quite difficult to produce. While it is easy to understand why happy perceivers would accept their positive ingroup membership, indeed, will engage in creative strategies to avoid a negative group membership, it is not so easy to understand why sad perceivers would accept being in a negative group. Theoretically, we can look to the principle of positive distinctiveness to understand both happy perceivers' actions and the actions of sad perceivers in positive ingroups. Why then, would sad perceivers in a negative ingroup not engage in strategies to create positive distinctiveness for their group, especially in the light of comparison to a positive outgroup?

As stated in Chapter 5, social identity theory states that people will accept a negative ingroup when group status is stable and legitimate, and group boundaries are impermeable. However, they will use other strategies to create positive distinctiveness such as redefining the group stereotype or reducing the importance of defining group attributes. Our findings indicate, however, that sad perceivers may not engage in such strategies and may well not strive to create positive distinctiveness in the same way as happy and neutral mood perceivers will. These results are consistent with work indicating that low status group members do not show ingroup

bias on dimensions where the outgroup is superior or where the dimensions are not important to ingroup definition (Mummendey & Otten, 1998; Mummendey & Schreiber, 1983; Mummendey & Simon, 1989). Reality sets limits, it is not possible, and social identity theory did not argue that it was inevitable, to represent the ingroup as positive (and therefore the self) at all times.

The fit hypothesis provides a strong argument that it is the match between self-concept in terms of mood state and self-concept in terms of group membership that heightens the salience of the group context for sad participants, resulting in acceptance of their negative group. Not only are they members of a stable, legitimate and impermeable group, the valence of that group fits their current self-definition in terms of their mood state. For sad perceivers, being in the negative group feels right. It is an outcome that can be meaningfully understood in terms of how they understand themselves and others within the current context of intergroup relations and self-conception.

In contrast, when happy participants are placed into the negative ingroup it doesn't feel right for them. As stated above, while these participants were willing to stereotype an outgroup target, they were not willing to accept their negative group membership and self-stereotype in a negative direction. In Study 3, we noted that participants managed to redefine the negativity of the ingroup via the positive stereotypical attributes presented to them. They disregarded performance information and used trait information to achieve positive distinctiveness. In this

study we specifically designed group information to create a stable, legitimate and impermeable negative ingroup. While reasonably positive ingroup attributes were available for participants to use to describe themselves, they refused to do this and, in fact, as their self-stereotyping scores reflected, they were actually describing themselves in terms of the (positive) outgroup. In other words, happy participants were using some other strategy to create positive distinctiveness for themselves in the intergroup context. They were re-categorizing themselves in terms of the positive outgroup.

Social identity theory states that one way of dealing with a negative ingroup membership is individual mobility. Members of the low status group pass themselves off as, or actually change membership to, the higher status group. In this study we attempted to create impermeable boundaries so as not to allow individual mobility to occur. However, these boundaries were conditional on participants accepting the legitimacy of the imposed minimal groups. It is plausible that participants rejected the legitimacy of the dot estimation task in assessing their “problem solving style”. If happy participants rejected their allocation as overestimators (negative group) and re-categorized themselves as underestimators (positive group) they could create for themselves a positive social identity via individual mobility. In this case, stereotypical descriptions of the so-called “outgroup” target may well have been stereotypical descriptions of a fellow “ingroup” member. In fact, results showed that there was no significant difference between target ratings and self-ratings for the happy mood/negative ingroup

condition. These results support the fit hypothesis, indicating that while happy perceivers find fit in a positive ingroup, they certainly do not find a match between their happy mood and a negative ingroup.

The results of this study add to the findings of the other studies in the program and extend them in important ways. In particular, we can see that the relationship between mood and group membership is a complex one. Underlying this complexity however, is the strong theme of happy and sad perceivers striving to achieve positive outcomes via their social identity, in interaction with their current mood state. A notable exception to this is the acceptance of a negative outcome when in a sad mood. As stated in Chapter 7, mood can be seen as information. Mood is information about the current context within which we make judgments about others and ourselves, about who we are and where we belong. Mood provides us with a further path to understanding and interpreting our world, including our social world. Mood is more than a message about information processing strategies; it is a message about meaning.

CHAPTER 10

The role of mood in the stereotyping process: a self categorization theory approach

Summary and conclusions

10.1 Introduction

This thesis has examined the role of mood in the stereotyping process. In particular, the focus has been on examining the robust finding of more stereotyping in happy moods. We have argued that the explanation for this finding rests in a re-conceptualization of both the stereotyping process and the role of mood within it. In explaining the “happy mood/stereotyping” effect in terms of the interaction of self-definition as group member and self-definition in terms of current mood state, we can go on to re-examine not only the role of happy mood in group processes but also sad or negative mood. We have discussed the crucial role of categorization in the process of both self and other definition, particularly the role of self-categorization at the level of social group membership as being the cause of all group behaviour including stereotyping.

In this final chapter the key aspects of the analysis are retraced. The theoretical and empirical implications of the thesis are discussed and the following question is addressed: What contribution has been made in this thesis? Based on the approach advanced throughout the last nine chapters, a number of areas for future research are discussed. Finally, some concluding comments are made about the examination of the role of mood in stereotyping. In particular about the benefits of a wider and more inclusive analysis that takes into account the very heart of a truly social psychological approach: that human perception starts from an interpretation of meaning and not from an attempt to save cognitive energy.

10.2 Recapitulation

Chapter 1 of this thesis introduced us to the topic of interest. The role of mood in the stereotyping process has been the focus of a large set of empirical and theoretical work in the last two decades. This collection of work has stemmed mainly from an approach to human social cognition based on the conception of the perceiver as a “cognitive miser” – unable or unwilling to expend cognitive energy on systematic information processing and therefore open to bias and information loss. Mood as interference, as taking up precious cognitive resources, was the focus of this line of work, in particular the idea that happy mood was more interfering than sad mood. Many studies were designed to elaborate on this theoretical approach and showed strong support for these ideas, mainly through the robust finding of more stereotyping in happy moods.

In Chapter 2 we examined the historic and theoretical background to the study of stereotyping that laid the way for the cognitive miser approach. The aim of Chapter 2 was to explore the historical underpinnings of methodologies and theories that are still in use today, to illustrate the extent to which stereotyping has been linked to prejudice and discrimination, and to establish the context in which the literature on mood and stereotyping has evolved.

We traced the early approaches to stereotyping and saw how stereotypes were mostly considered to be inflexible and rigid, a byproduct of the way in which we perceive our social world and the extraordinary amount of information that we have to deal with. Lippmann (1922) is hailed as the first social scientist to delve into the concept of stereotypes. Lippmann conceptualized stereotypes as “pictures in our heads”. Further, he saw them as irrational and biased, wholly within the individual but used as social explanations, or rationalizations, of status, position and cultural tradition.

Katz and Braly (1933) conducted what is recognized as the first empirical exploration into stereotypes when they asked Princeton students to rate ten national and racial groups on 84 different attributes. The Katz and Braly checklist methodology is still used in research today. Other work followed that focused on descriptions of various groups across various times and cultures. In fact, the Katz and Braly study was replicated twice in the investigation of the content of stereotypes (Gilbert, 1951; Karlins et al., 1969). While some researchers were content to examine stereotype content, others were interested in whether or not there was any truth in peoples’

descriptions of various groups. This was the “kernel of truth” debate, which found mixed evidence for the idea that stereotypes arise from real group differences that could somehow be measured. The problem of reliable criteria and the definition of accuracy made this search incredibly difficult. Indeed, Oakes and Reynolds (1997) state that the measurement techniques of psychology make the kernel of truth debate impossible and irrelevant.

In the 1940’s and 1950’s, following the Second World War, the psychodynamic approach to stereotyping developed as an attempt to explain such events as the Holocaust. Individual psychopathology was seen as the cause of prejudice and stereotyping and the resultant extreme discrimination displayed. This approach was difficult to reconcile with the very events it tried to explain however, as it cannot adequately explain prejudice and discrimination as an “en masse” social phenomenon. Later in the 1950’s, the search began for a more theoretical explanation of prejudice and stereotyping. Researchers such as Vinacke (1957) and Fishman (1956), along with Asch (1952) and Sherif (1967), attempted to develop theories of stereotyping that focused on the human perceiver as experiencing more rational, intelligent and thoughtful cognition and as being inextricably linked to society and social groups. Asch discusses the importance of “a *socially structured field within the individual*.” (1952, p253, emphasis in original).

It was Allport (1954) however, who raised the connection of stereotyping to categorization in human perception to a new level. He stated that categorical

thinking was a normal and natural part of perception and that categorization is the basis for group differentiation and stereotyping. Allport distinguished between two types of categories, however, rational and irrational, with stereotypes being firmly contained in the second type. It was Henri Tajfel who propelled the process of categorization into its current status as the normal, rational, and crucial cognitive mechanism for the origin of stereotypes and stereotyping.

Tajfel (1969) states that it is categorization and its effects that are pivotal in the stereotyping process and the ability for humans to perceive social groups in the same way as we perceive other groupings of stimuli. The process of accentuation is fundamental to this perception. Tajfel showed evidence for what he considered to be a bias of distortion of perception caused by categorization: the tendency to exaggerate differences between, and similarities within, stimuli (including social groups) that have been classified according to a continuous dimension. It is this process, he believed, that created the overgeneralizations that we know as stereotypes. It was Tajfel's work that made a significant impact on the study of prejudice and stereotyping and helped to lead this research into the cognitive revolution of the 1970's

The cognitive revolution of the 1970's saw the emergence of the metatheory of the "cognitive miser" and the consequent analysis of stereotyping as a shortcut, an heuristic, a cognitive tool. We examined the models of Fiske and Neuberg (1990) and Brewer (1988), and the work characterized as the cognitive load literature. We

saw that stereotypes were conceptualized as performing the tasks of simplifying and organizing our social world, the unfortunate byproduct of the categorization process, the main function of which is to cope with cognitive overload. Further, we saw the emergence of the idea that while stereotyping and group behaviour were the results of categorization, individuation was category free, accurate and the preferred form of information processing. From this perspective, stereotyping was evidence of heuristic, unsystematic thinking engaged in to avoid cognitive effort and save cognitive resources. Where these resources were stretched, or where we found no pressing reason to think more carefully, we would automatically and from the outset, default to categorization and therefore stereotyping. This review set the scene for the examination of the mood and stereotyping literature that followed in Chapters 3 and 4.

In Chapter 3 we concentrated on the broader models of affect and social cognition that preempted the more specific mood and stereotyping literature. We discussed the association models of Bower (1981, 1991) and Clark and Isen (1982) and Isen's extended contextualist theory (1984, 1987). In these theories, mood is conceptualized as connected to memory via a network (Bower), or via semantic or episodic links (Isen). Positive mood has strong and numerous connections to memory and thus results in an upsurge of material into cognition. Negative material is thought to be less accessible than positive due to a natural tendency to engage in mood repair in negative moods. In terms of stereotyping, mood congruency effects are predicted whereby the association between mood and specific material in

memory may affect the way in which person information is perceived and processed. Negative material will give rise to negative appraisals, positive material will result in more positive appraisals, however may also interfere with cognitive ability, thereby causing the person to categorize and stereotype.

In Chapter 3 we also discussed the “mood as information” account of Schwarz and Clore (1988), which states that people use their mood state as a form of information about their psychological environment. Positive mood may signal to the perceiver that there is no need to engage in systematic processing. Negative mood signals the opposite, that systematic processing is necessary to explore and correct the negative psychological situation. This approach predicts stereotyping in happy moods and individuation in sad moods due to the assumed link between stereotyping and heuristic processing.

Two other models of mood and social cognition were discussed in Chapter 3, that of Sinclair and Mark (1992) and that of Forgas (1995). Both of these models are heavily influenced by the cognitive miser tradition outlined in Chapter 2, and both focus on the search for cognitive economy as the overriding factor in information processing. Mood is seen as a mediating variable in this process, with stereotyping more likely when mood affects our ability to think systematically, and therefore to individuate.

The review of models of mood and social cognition in Chapter 3, leads into the examination of the more specific mood and stereotyping work outlined in the next chapter. We see in Chapter 4 that this literature is a result of the integration of two areas of research, that investigating stereotyping and group processes within the cognitive miser tradition, and that investigating the influence of affect on cognition and social judgment. We saw that the conceptualization of stereotypes as heuristic, cognitive labour saving devices is a strong theme in the area of mood and stereotyping. Work by researchers such as Mackie, Stroessner and colleagues, Bodenhausen and colleagues and Bless and colleagues, stressed the link between mood and information processing strategies or modes of thinking. In particular we saw the development of the “happy mood/stereotyping” principle, as a result of the robust finding of more stereotyping in participants induced into happy moods in comparison to those in sad or neutral moods.

Different researchers put forward different explanations for this effect ranging from cognitive overload, affect priming, motivation to avoid effortful processing, and heuristic processing choice, to the use of “general knowledge structures” (Bless, 2001). Above all, we noted that the research of this time (mostly carried out in the 1990’s), suffered from a refusal to take into account the truly social psychological context within which stereotypes are formed, maintained and applied. We stated that what was missing from this analysis was a conceptualization of both stereotyping and affect as meaningful processes that stem from our experience as social beings, striving for understanding and coherence in our interactions with the social world.

In Chapter 5, then, we presented an alternative analysis of mood and stereotyping formed on the basis of a “New Look” (Bruner, 1957) into the process of categorization and therefore into social categorization, self-categorization and the social reality of stereotypes. We argued that stereotyping is not the result of limited information processing capacity or the motivation to avoid cognitive effort, and therefore that mood’s effect on stereotyping was not via its effect on information processing. We presented an argument, based on the premises of self-categorization theory and social identity theory that mood’s effects on stereotyping are due to its effects on the salience of group membership and social identity.

We identified two factors that we believe are responsible for the “happy mood/stereotyping” effect found in previous research: implicit ingroup membership and positive ingroup valence. We then presented the main argument of the thesis as such: stereotyping is a product of self-categorization at the social level of identity and that social identity salience is a product of the interaction between perceiver readiness and fit. Further, that positive mood heightens, and negative mood lowers, the salience of self-categorization as a member of a positively valenced ingroup as a function of the perceived fit between valence of the self (mood state) and valence of the ingroup. Finally, that the positivity of any ingroup is perceived via comparison with a relevant outgroup such that the ingroup (and therefore the self) is defined as positively distinct on the dimensions of importance within the current context.

We then presented the results of four studies, presented in Chapters 6 through 9, that showed strong support for our contentions. Study 1, outlined in Chapter 6, crossed mood and group context in a 2 x 3 design. Happy, neutral and sad mood participants judged a target in either an intergroup or interpersonal context. Results found that, as predicted, participants stereotyped the target when they were in the intergroup condition, regardless of mood and, as predicted, no context by mood interaction was found. These results supported self-categorization theory's conceptualization of stereotypes as the product of self-definition in terms of the social level of identity.

The second study in the series went on to examine more directly the happy mood/stereotyping effect by manipulating happy and neutral mood in tandem with interpersonal and intergroup contexts. Importantly though, ingroup valence was carefully maintained as positive in this study. Results supported the prediction that participants would stereotype more in the intergroup condition than the interpersonal or intragroup conditions. Further, when happy participants were making judgments of an outgroup member, they stereotyped both the target and themselves more than neutral mood subjects in terms of the positive ingroup. These results were entirely consistent with our argument that happy perceivers experience increased fit between valence of self and valence of ingroup when that group is positive; especially in comparison with a negative outgroup. These results led us to consider effects when mood is negative and when the ingroup is also negative. Would a negative mood result in increased fit for a negative ingroup in the same way as positive mood increases fit for a positive group?

The final two studies, outlined in Chapters 8 and 9, investigated the effects of negative and positive group membership in negative and positive moods. These studies revealed strong support for the idea that sad participants experience increased fit for a negative ingroup in the same way that happy participants do with positive mood. In Study 4, in particular, we found clear evidence that sad participants were quite willing to self-define in a relatively negative way in comparison with the positive outgroup. This is an important finding in regard to the principle of positive distinctiveness – it would appear that sad perceivers in a negatively valued ingroup do not strive to achieve a positive self-definition but are willing to accept their membership of a negative ingroup.

We also found that happy mood may have more complex effects in terms of social identity than first thought. Happy mood participants in both Study 3 and Study 4 found some way of disregarding negative information about their ingroup and re-defining themselves in a positive way. In Study 3, they appeared to use a strategy of social creativity, disregarding information about group performance and relying on information about the relatively positive ingroup stereotype in order to achieve positive distinctiveness. In Study 4, results revealed a process of re-categorization in terms of ingroup identity, a strategy of individual mobility. Describing themselves more in terms of the positive outgroup, happy mood participants were able to achieve positive self by refusing to accept the imposed negative group membership. This

finding is consistent with the idea that positive distinctiveness is of paramount importance for happy perceivers.

10.3 Theoretical implications of the thesis: What contribution has this thesis made to the field?

At a theoretical level, the self-categorization theory analysis of stereotyping, that stereotyping is a product of categorization of self and others at the social level of identity, has been examined in terms of its relevance to the literature on the role of mood in the stereotyping process. We have explored the role of both positive and negative mood in interaction with both positive and negative ingroup valence. Hypotheses and predictions based on a reanalysis of mood and stereotyping from within a self-categorization theory approach have been generated and have received strong support. This analysis has demonstrated the crucial role of self-definition in the relationship between mood and the stereotyping process.

The theoretical and empirical insights presented in this thesis are incompatible with an information processing approach to mood and stereotyping in a number of ways. Importantly, the finding that context of judgment is more important than mood in respect to stereotyping does not sit well with the idea that stereotypes are a form of information reduction. The logical link from stereotypes as heuristics to stereotyping in happy moods, due to the use of heuristic processing, is lost when we find that sad and neutral mood perceivers are just as willing to stereotype as happy perceivers

when the context makes it relevant to make intergroup rather than interpersonal judgments.

Once this initial step had been taken, the task for this thesis then, was to explore the previous robust finding of the field that indeed happy people did appear to rely on stereotypes more than neutral mood or sad people. Strong support was subsequently found for abandoning the concept of mood as simply linked to information processing styles, or the reliance on heuristic types of knowledge structures and moving on to a more complex analysis in terms of mood and self-definition. This thesis isolated the happy mood/stereotyping effect and revealed the link between this effect and mood's influence on the process of self-definition, and therefore on self-categorization at the social level of identity within a particular context. The idea that happy people find increased fit in terms of a positive ingroup – indeed, will strive to achieve positive distinctiveness in the face of a negative ingroup – was well supported.

This finding allowed the thesis to move the analysis forward to explore the interaction between valence of the ingroup and valence of mood – an analysis never before investigated. This exploration extended findings in the field and shifted the focus of investigation into new territory. The thesis investigated stereotyping in sad moods and the potential for sad perceivers to find increased fit in a relatively negative ingroup through the same process of self-definition as happy perceivers. We found good support for this fit based analysis of the role of mood in stereotyping

in both sad and happy perceivers. The finding that participants' self-definitions changed as a result of the interaction of mood and group valence, while target ratings stayed similar in the intergroup context, shows that mood is more than information about the appropriate information processing strategy to use, it is information about the wider context of the situation and where we fit into that in terms of our group memberships.

A self-categorization theory account of mood and stereotyping therefore brings a new level of analysis into the field. It opens the way for further investigation into the complex interrelationship that exists between mood and social behaviour. As Turner (1999) stated about the investigation into cognitive biases, the heyday of research into mood and intergroup behaviour in terms of incidental mood, may well be passed. In fact, in 2000, Herbert Bless commented to this author that the current models of mood and stereotyping had gone as far as they could go. They had reached an impasse in terms of explanatory utility and the field was left with a host of unanswered questions. Many of the researchers had moved on to investigating interpersonal effects of mood or the effect of integral group-based feelings. This thesis, and the theoretical and empirical approach it presents has the potential to reopen the door into the role of mood in stereotyping with a new and original approach that focuses on mood as inextricably linked with the self and self-definition. This leads us to discuss the directions that this new investigation may take.

10.4 Directions for future research

A number of directions for future research arise from the work presented in this thesis. We will address two of these: further development of the finding that sad perceivers will accept a negative self-definition, and a more direct investigation of the implicit/explicit distinction in group membership.

The finding that people in a sad mood will willingly describe themselves in terms of a negatively valenced ingroup has implications for research not only in social psychology, but also in the area of clinical and applied work. Firstly, in social psychology this finding sheds some interesting light on the areas of social judgments, intergroup relations and stereotyping. As stated above, by around the mid 1990's, many researchers had abandoned their interest in trying to understand stereotyping and mood. The happy mood/stereotyping effect had been explained in various ways, however there were still unanswered questions. Both Bless (1996) and Bodenhausen and colleagues (Bodenhausen, Kramer & Susser, 1994), had hinted at the idea that social identity may play a part in mood's influence on stereotyping, but the authors did not take their investigations in that direction. Further, because empirical work had, perhaps inadvertently, used only positive ingroups, the effects of negative ingroups had not been investigated.

Results of experimental work in sadness had been mixed throughout this time with some studies showing sadness working in opposite ways to happiness and some showing the same outcomes for happiness and sadness (Isen, 1984). Most researchers

believed that this was due to sad perceivers *acting like* happy perceivers in order to repair their sad mood, or responding to experimenter demand to *maintain* their mood. Importantly, these responses were interpreted as using particular information processing strategies. The current findings may shed some light on these mixed results. The finding that perceivers in a sad mood are just as inclined to stereotype an outgroup target as are happy perceivers if the context in which they are making judgments is an intergroup one, indicates that sad perceivers are stereotyping due to the context of judgment, not the type of information strategies they are using. It may be that in previous experiments when sad mood participants were supposedly using substantive processing and therefore not stereotyping (explained as mood maintenance), the intergroup context may not have been salient for them. When, on the other hand, they were *acting like happy perceivers* it may well have been the case that the intergroup context was the pivotal factor in their responses. There is a need to understand the relationship between sadness, social group membership and the propensity to stereotype both outgroup targets and the self.

Secondly, this finding may relate to the area of depression in clinical psychology. Depression is characterized by deep and lasting sadness, along with social withdrawal, flatness and feelings of worthlessness, and negative self-thoughts (DSM-IV, 1995). If these self-thoughts are also related to social group membership, then dealing with depression in some clients may be more difficult than first thought. Many clinicians attempt to treat depression through alleviating negative thought patterns and replacing these with positive self-attributions. This is almost inevitably

based on the client as an individual. It may be that social group memberships, especially those of lower status, negative ingroups, may also need to be examined in terms of redefining negative self-definitions.

Thirdly, in organizational psychology, acceptance of negative social identity could be an important factor in work place relations and job satisfaction. For workers in low paid, low status jobs, unhappiness in the workplace can be a huge problem for the workers themselves and for employers. If, however, feeling unhappy about the situation leads to actual acceptance of the low position, workers may not engage in action to alleviate their plight. As stated in Chapter 5, Levine (1996) differentiates between anger and sadness in terms of agency and coping potential. Anger may well lead to attempts to do something about the situation whereas sadness is associated with low perceived control and powerlessness. Our findings indicate that these attributes may be related to social as well as personal identity with sad perceivers being willing to accept negative self-definition while happy perceivers use whatever strategies are available in order to avoid membership in a negative ingroup.

The distinction between explicit and implicit group membership is one that is only just starting to receive some attention in the social identity literature. Spears (2002) states that there are four degrees of differentiation between groups. At the “information rich” end of the scale, groups have well defined differences that are evident to group members and form the basis of the group stereotypes. At the “information poor” end of the scale, there are no clear differences between groups

and therefore, if group differentiation is to occur, differences must be creatively defined within the current situation. In the middle of these two extremes, are situations in which there is a moderate to small amount of information to go on, such as minimal group paradigms. The situation where the outgroup is explicit – only outgroup target information is available – is one of these. Where only information about the outgroup is available, perceivers must deduce the stereotype of the ingroup from “what we are not” rather than “what we are”. Differentiation between groups in this case involves defining the ingroup, and therefore the self, as whatever the outgroup isn’t.

As discussed in Chapter 5, category salience is positively related to separateness and clarity (Oakes, 1987; Rosch, 1978,). The degree of separation of two groups and the clarity with which each group can be defined enhances the sense of two distinct groups. When information is only available about one of the groups, where group boundaries and group definitions are fuzzy, this would then lessen both the degree of separation (definable differences between the groups) and clarity (definable similarities between members of each group). The intergroup context is then less salient than when these factors are maximized. The ideas put forward in this thesis about the impact of explicit vs implicit group membership on the effects of mood on stereotyping are the tip of this research iceberg. There is a wealth of future research available in the investigation of this issue.

10.5 Final comments

While the aim of this thesis was wide, the target was small. A chance reading of a paper published in 1996 entitled “Happy and Mindless, but Sad and Smart?” introduced the author to the area of research. The implication that people in happy moods were “mindless”, overwhelmed by the sheer volume of happy information that was coursing into their brains via memory and rendering them unable to think properly, and therefore likely to engage in that mindless, un-thoughtful activity of stereotyping could not go unchallenged. Further, that people in sad moods had lots of spare cognitive resources available for systematically thinking about the information they were presented with and therefore that they would not engage in stereotyping, stood out as unbelievably naïve in this author’s mind.

Two issues were at stake here. Firstly, the patently obvious approach to stereotyping as a cognitive shortcut and heuristic process was completely at odds with an understanding of stereotyping as a social process of group differentiation caused by self-categorization at the social level of identity. Secondly, mood was treated purely and simply as a form of information overload, or as a cue to information processing strategy. Where, in this analysis, was the recognition of how our moods affect us in terms of how we feel, not just in terms of how we process information?

Further, the deliberate separation of incidental and integral affect in the literature, and the concurrent approach to stereotyping as an information reduction mechanism had created a situation where, contrary to years of intergroup relations research and

contrary to our intuitive understanding of how mood works to define our relationships with others, we were faced with the finding that it is happy people who are most likely to engage in stereotyping of outgroup members.

This thesis started as an attempt to explain, in a way that was compatible with self-categorization theory's approach to the stereotyping process, why this effect was so robust in previous research. The target was a small one. One single effect. What this thesis has done, we believe, is to open the door for a complete re-conceptualization of the way in which mood and social identity interact. Our aim has become wide, we hope we have been successful. We firmly believe that there is no distinction between integral and incidental affect. All mood is integral, all mood is context, all mood is meaning.

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