3. Affect and the "Social Mind": Affective Influences on Strategic Interpersonal Behaviors

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Introduction

Interpersonal behavior is almost never devoid of affect. Indeed, as Zajonc (1980) once argued, affect is probably *the* most fundamental dimension of social interaction. It is rather surprising to find, then, that most of the classic theories interested in the social mind and its role in interpersonal behavior devoted relatively little attention to the analysis of affective states and their role in social life (Hilgard, 1980). It is only as a result of extensive research during the past 20 years or so that it is now recognized that affect and mood constitute an essential component of the social mind, and exert a significant and predictable influence on our thinking as well as our strategic social behaviors. Indeed, there is strong convergent evidence from neuropsychology and psychophyisiology supporting the view that affect is an essential component of adaptive social thinking and motivation (Adolphs & Damasio, in press; Blascovich & Mendes, 2000).

Evidence for the pervasive role of affect in many kinds of social behaviors is all around us. To take one example, in a well-known short story on the game of chess, the writer Thomas Mann describes how chess players will suddenly and unconsciously change their strategies from aggressive to defensive and back again in line with the changing affective tone of the background music they listen to. But how and why should changes in incidental music produce a change in people's strategic behaviors? What are the cognitive mechanisms that are responsible for this subtle link between an upbeat, positive tune, the good mood it induces, and more daring, risky, and optimistic strategic moves?

In many ways, playing chess is an ideal metaphor for understanding the strategies that govern social interaction in real life. Just like chess, social interaction also demands constructive thinking in inherently uncertain situations. Subtle shifts in mood due to changes in background music, for example, may impact on our incidental thoughts and associations, and ultimately will have a significant influence on our interpersonal behaviors. Experimental studies have confirmed the effects of mood on various strategic behaviors, just as described by Thomas Mann. Participants in a good mood seem to behave in a much more confident and even assertive way, whereas participants in a bad mood act in a pessimistic and cautious manner (Forgas, 1999a, 1999b). Thomas Mann's short story also describes just how this might happen. His chess players subconsciously hum along with the tunes they hear, and the words and thoughts that come to their minds either seem associated with positive, lucky, and successful events (happy tunes) or suggest failure, sadness, and loss (sad tunes). As their minds constructively search for the next strategic move in their game, their music-induced thoughts and associations cannot help but infuse their plans about what to do and eventually influence their playing strategies.

How do Thomas Mann's incisive – but fictional – ideas linking music, mood, and chess apply to real-life interpersonal behaviors? Do affective states indeed influence what we do in social situations? Based on recent theories and empirical evidence, this chapter will describe just how and why affect should be considered an integral part of the social mind and how affective states may come to influence many kinds of interpersonal behaviors.

Some Theoretical Issues

Even though the relationship between affect, cognition, and behavior has been the focus of enduring interest and speculation since time immemorial, most of what we know about the links between affect and social behavior have been discovered only during the past 20 years or so. This chapter will emphasize the critical role of *cognitive* processes in mediating affective influences on social behaviors. This emphasis is

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based on extensive recent evidence – including numerous studies in our Affect Research Laboratory – suggesting that mood effects on attention, thinking, memory, and judgments are critically involved in regulating eventual mood effects on behavior. In other words, this chapter will suggest that it is through affective influences on cognition that subsequent changes in interpersonal behaviors can be best understood. Cognitive accounts are also preferred here because they appear better able to accommodate clear evidence indicating the considerable context and situation sensitivity of affective influences on social behaviors (see also the chapter by McGuire and McGuire).

Motivational Accounts

There is, however, also an alternative view that emphasizes the direct influence of affect on motivation rather than cognition as the primary route to explain behavioral effects. Recent theories by Carver and Scheier (1998), Polivy (1998), and others represent influential examples of such an approach. These theories see affect as essentially an adaptive and functional source of information about motivated goal achievement. It is quite interesting that after decades of ignoring affect as at best irrelevant and at worst a fundamentally disruptive and maladaptive force (Hilgard, 1980), psychological theories have now come full circle, viewing emotions as a source of predominantly functional and adaptive information. For example, Carver and Scheier (1998) suggest that affect mainly functions as a signal indicating progress toward goal achievement and plays a key role in regulating the *intensity* of motivation.

This seems an unduly restrictive conceptualization of the role of affect in social behavior. In fact, much of the evidence to be reviewed here suggests that affect can also have an important independent influence on behavior by colouring people's thoughts, judgments, and interactive strategies. According to this view, affective influences are neither inherently functional nor dysfunctional. As human beings are highly flexible and sophisticated information processors, affective influences on behavior can be best understood in terms of cognitive mediating mechanisms (Bower, 1991; Forgas, 1995a; Smith & Kirby, 2000). Thus, rather than viewing affect as simply a motivational feedback signal (Polivy, 1998), it will be argued here that affect also has a direct and independent influence on behavior that is mediated by cognitive processes.

Affect, Mood, and Emotion

Our primary concern here is with the effects of low-intensity moods on social behaviors. Despite decades of research, it remains unclear how terms such as *emotion*, *affect*, *feelings*, or *mood* can best be defined (Fiedler & Forgas, 1988; Forgas, 1992a, 1995a). As we have proposed elsewhere, the term affect will be typically used here as a generic label to refer to both moods and emotions. Moods, in turn, may be defined as "low-intensity, diffuse and relatively enduring affective states without a salient antecedent cause and therefore little cognitive content (e.g., feeling good or feeling bad)," whereas *emotions* "are more intense, short-lived and usually have a definite cause and clear cognitive content" (e.g., anger or fear) (Forgas, 1992a, p. 230). There is evidence that moods, as well as emotions, may influence social behaviors (Forgas, 1991, 1994, 1998a, 1998b, 1998c, 2000). However, nonspecific moods often have a more enduring and insidious influence on the social mind and on subsequent social behaviors than do distinct emotions – precisely because they do lack elaborate cognitive content and thus often escape conscious scrutiny (Fiedler, 1991; Forgas, 1992a, 1992b, 1995a, 1995b, 1999a, 1999b; Mayer, 1986; Sedikides, 1992). This chapter will discuss recent evidence for the influence of moods on how people plan and implement interpersonal behaviors and how they interpret the observed behaviors of others.

Affect, Cognition, and Behavior

There also continue to be fundamental disagreements in the discipline as to whether affect should be treated as part of the cognitive-representational system or should be seen as an entirely separate, primary mental faculty (Fiedler & Forgas, 1988; Hilgard, 1980; Salovey & Mayer, 1990; Zajonc, 2000). There is an influential view that feelings are external to and separate from cognition, and can serve as a source of independent input to subsequent cognitive and behavioral processes, just as Thomas Mann's short story suggested (Clore, Schwarz, & Conway, 1994). Such a *separate-systems* view was proposed by Zajonc (1980, 2000), who argued that affect often precedes, and is distinct from, cognitive processes.

Whether affect is primary or not, the approach developed here assumes that affect and cognition represent closely related and interacting systems allowing affective states to infuse and inform people's thoughts and subsequent social behaviors. The empirical evidence also suggests that affective states will rarely trigger direct and invariant behavioral responses. Quite the contrary: The same affective state can have a congruent, an incongruent, or no effect on subsequent cognition and action, depending on subtle shifts in people's preferred information processing strategies (Berkowitz, Jaffee, Jo, & Troccoli, 2000; Erber & Erber, in press; Forgas, 1991, 1995a; Sedikides, 1994).

Affect Infusion

For the purposes of this discussion, such *affect infusion* may be defined as a process whereby affectively loaded information exerts an influence on and becomes incorporated into a person's cognitive and behavioral processes, entering into his or her constructive deliberations and eventually coloring the outcome in a mood-congruent direction (Forgas, 1995a). Affect infusion occurs because planning and executing complex social behaviors usually requires high-level, constructive, and inferential cognitive processes. As also suggested by Mead's symbolic interactionist theory, social actors can make sense of ambiguous situations, and plan their actions and pursue their goals effectively, only by constructively using their preexisting knowledge, memories, and associations to create a meaningful cognitive representation of the social world. In many situations, the prevailing affective state of a person can become part of the constructive informational base used when interpreting information or when planning and executing a behavior (Fiedler, 1991).

There is evidence that affect infusion is most likely to occur in the course of *constructive processing* that involves the substantial transformation rather than the mere reproduction of existing social knowledge. In other words, affect "will influence cognitive processes to the extent that the . . . task involves the active generation of new information as opposed to the passive conservation of information given" (Fiedler, 1990, pp. 2–3). Research has also shown, however, that affect infusion is not an invariable phenomenon. Frequently, the affective state of a person appears to have no influence on the content of cognition and action, and may even have an inconsistent, mood-incongruent influence (Erber & Erber, in press; Forgas, 1991; Sedikides, 1994). How can we explain these apparently contradictory findings?

The *Affect Infusion Model (AIM)* recently proposed by Forgas (1995a) argues that the nature and extent of affect infusion into behavior and cognition will largely depend on what kind of processing strategy is adopted by a person in dealing with a particular task. This is in marked contrast to the single-process assumptions of many social cognition theories. The AIM predicts that some social tasks such as setting and performing routine, recurrent actions may require little constructive thinking (Fiedler, 1991) and should be impervious to the infusion of affect. In contrast, interpersonal tasks that require the monitoring of ambiguous or indeterminate information and the production of complex responses may require highly constructive and generative cognitive processing that can be readily influenced by affect (Forgas, Bower, & Krantz, 1984).

The AIM identified four alternative processing strategies people might use in social situations, each characterized by different affect infusion potentials. (1) The *direct access* of a preexisting response or (2) *motivated processing* in the service of a preexisting goal both involve highly predetermined and directed information search and behavior patterns that require little generative, constructive processing, limiting the scope of affect infusion. In contrast, when an interpersonal task requires a degree of constructive processing, people may use either (3) a *heuristic*, simplified or (4) a *substantive*, generative processing strategy to plan their actions and produce a response. These are high-infusion strategies that require a degree of open, constructive thinking in which affect may either directly (Clore et al., 1994) or indirectly, through primed associations (Forgas & Bower, 1987), inform the response.

According to the AIM, processing choices should be determined by three categories of variables associated with the *task*, the *person* and the *situation*, respectively. Familiarity, typicality, and complexity are the main *task features* of interest. *Personal factors* include traits, personal relevance, motivational goals, cognitive capacity and affective state. Finally, *situational factors* such as the need for accuracy, public scrutiny, or normative pressures may also influence processing choices. A complete description of the AIM and the evidence supporting it has been presented elsewhere (Forgas, 1992a, 1995a, 2000), so it will not be reviewed in detail here. The major relevance of the AIM is that it provides a framework within which the presence or absence of affect infusion into the social minds of actors, and thus into their interpersonal behaviors, can be explained within an integrated theoretical model.

This distinction between different processing strategies as mediators of affect infusion should have considerable benefits for understanding mood effects on interpersonal behaviors. For example, the direct access strategy recognizes that people possess a rich repertoire of routine, preexisting social moves and will rely on these whenever more extensive processing is not necessary. Direct access is a low-affect infusion strategy requiring little on-line constructive processing. Motivated processing is a highly selective, guided, and targeted information processing strategy that is also impervious to affect infusion. Indeed, motivated processing may frequently be used to achieve mood maintenance as well as mood repair in social encounters, as several studies have now found (Forgas, 1990).

In contrast, heuristic processing should be adopted when people have no stored action plan or a strong motivation to guide their actions, and they seek to produce a response with the least amount of effort, using whatever shortcuts or simplifications are readily available. This strategy is common when the interaction is of low personal relevance, processing capacity is limited, and the context does not call for greater elaboration. Interpersonal behaviors are sometimes guided by heuristic cues such as irrelevant features of the environment or the superficial characteristics of a person. Heuristic processing can also produce affect infusion into social behavior when actors misinterpret their prevailing affective state as indicative of an evaluative response to the situation (cf. Clore et al., 1994).

Substantive processing is the most constructive and extended strategy for dealing with social situations. It occurs when people need to select, learn, and interpret new information about an encounter, and need to rely on their associative ideas and memories to accomplish this. Affect priming can produce significant affect infusion during substantive processing, as "activation of an emotion node also spreads activation throughout the memory structures to which it is connected" (Bower, 1981, p. 135). Paradoxically, affect infusion may be greater when more extensive and constructive processing is employed, a counterintuitive prediction that has been repeatedly confirmed in recent studies (Fiedler, 1991; Forgas, 1992b, 1994, 1995b, 1999a, 1999b; Sedikides, 1995). This occurs because more extensive and elaborate processing also increases the likelihood that affectively primed information will be inadvertently incorporated into the behavior planning process, as found in several of our recent experiments.

What is the evidence for affect infusion into interpersonal behaviors? In the next section, we shall briefly review some of the recent empirical literature indicating affective influences on how people perceive, plan, and behave in social situations.

Affect and Interpersonal Behavior

As we have seen, affective states can play a complex and interactive role in strategic social behaviors. The AIM suggests that affect may influence both the *content* of people's actions (what they do) and the *processes* they use to think about and respond to social situations. Thus, a full understanding of how affect impacts on behavior requires careful attention to the kinds of information processing strategies people adopt in particular social situations. Empirical evidence supporting these suggestions, including research from our laboratory, will be considered next.

Affective Influences on Behavior Interpretation

Strategic social behavior is necessarily based on people's perception and evaluation of the actions of others and themselves. To the extent that affective states may influence how such judgments are made, they will also influence subsequent social behaviors. Indeed, the on-line interpretation of observed behaviors is one of the most fundamental social-cognitive tasks people face in everyday life (Heider, 1958; Kelly, 1955). Does affect influence the outcome of such simple behavior interpretation tasks? In terms of the AIM, to the extent that making sense of observed behaviors does require some degree of inferential, substantive thinking (Heider, 1958), there should be some evidence for mood-consistent distortions in behavior interpretation.

We performed a particularly challenging test of this hypothesis (Forgas et al., 1984). Rather than analyzing artificial judgments, we provided participants with objective videotaped evidence of their actual social interactions. This study was carried out over 2 consecutive days. On the first day, pairs of participants were videotaped while engaging in four kinds of social encounters (interviews) with female confederates of varying formality and intimacy. The next day, the same people returned for a "social perception experiment." They were hypnotized and induced to feel happy or sad, and were then asked to monitor the videotapes of the interaction episodes from the previous day. Their task was to make frequent evaluative judgments about the observed behaviors, and to identify and score instances of positive, skilled and negative, unskilled behaviors both for themselves and for their partners as they saw it on the videotape.

We found a significant affective bias on this on-line behavior monitoring task, despite the availability of objective videotaped information. Happy subjects saw more positive, skilled and fewer negative, unskilled behaviors both in themselves and in their partners than did sad subjects. Negative mood, in turn, resulted in more negative behavior interpretations for the self but not necessarily for others – a pattern also commonly found in depression. Observers who received no mood manipulation showed no such monitoring biases. These results confirm the existence of a significant mood-induced bias on how interpersonal behaviors are monitored and interpreted even when objective videotaped evidence is readily available. It is quite likely that mood may have an even greater effect on monitoring and interpreting naturally observed social behaviors in everyday circumstances when people are not consciously focusing on videotaped information, as was the case here. According to the AIM, these affective biases should be due predominantly to mood-priming effects in the course of substantive inferential processing. This prediction was supported by recall data showing better memory for positive, easy interactions by happy subjects and negative, difficult interactions by sad subjects.

In several later experiments, we explored the impact of temporary moods on more complex, elaborate inferential judgments about the causes of various social events. Results clearly confirmed that people in a negative mood tended to make more critical, self-deprecatory interpretations and attributions for their own behaviors, whereas those in a positive mood selectively looked for and found lenient and optimistic explanations for identical outcomes (Forgas, Bower, & Moylan, 1990). Surprisingly, such mood-induced distortions of behavior interpretation can even influence evaluations of highly familiar, intimate, and involving interaction episodes, such as real-life conflicts experienced in people's long-term relationships (Forgas, 1994). In these experiments, partners involved in long-term intimate relationships were asked to evaluate behaviors in more or less serious interpersonal conflict episodes while feeling good or bad. Results again showed a significant mood-congruent bias. People in a positive mood selectively preferred lenient, self-serving explanations. Further, in a counterintuitive pattern, these mood effects on behavior monitoring became even greater when judgments were made about more complex and serious conflicts that required more extensive and constructive processing strategies to be adequately explained.

These studies show that affective states are an integral part of the social mind and tend to spontaneously infuse even such mundane tasks as the on-line monitoring of observed social behaviors. To the extent that moods can have a major impact on how social behaviors are interpeted, it is reasonable to expect that the actual performance of interactive behaviors should also show affect sensitivity in circumstances that favor open, constructive processing. We now have evidence for just such effects in a series of more recent experiments.

Mood Effects on Responding to Strategic Situations

Responding to an unexpected request by a stranger is one of the simplest interpersonal tasks in which a rapid reaction involving constructive cognitive processing is required. In a series of recent field experiments (Forgas, 1998b), we looked at the role of temporary affective states in determining how people evaluate and respond behaviorally to more or less polite requests directed at them in a public place. In order to increase the external validity of the design, an unobtrusive strategy was used. Students entering a library found pictures or text placed on their desks designed to induce a good or bad mood. A few minutes later, they were approached by another student (in fact, a confederate) and received an unexpected polite or impolite request for several sheets of paper needed to complete an essay. Their responses were noted. A short time after this incident, a second confederate explained to participants that the request was staged, and asked them to complete a brief questionnaire evaluating their perception and recall of the request and the requester. Results showed that there was a clear mood-congruent pattern in how students behaved in this situation. People in an induced negative mood were more likely to form a critical, negative view of requests and were less inclined to comply than were those in a positive mood (Figure 3.1). In a particularly interesting result, we found a significant interaction between mood state and the level of politeness of the request. Overall, mood effects were significantly greater on the evaluation of and responses to impolite, unconventional requests that required more substantive processing, as confirmed by better recall memory for these messages later on. Conventional, polite requests were apparently processed less substantively, were less influenced by mood, and were also recalled in less detail later on.

This experiment shows that unrelated temporary mood states have a significant mood-congruent influence on the way people respond to unexpected social situations. Further, consistent with the AIM, these results indicate that affect infusion into the planning and execution of impromptu social behaviors is significantly mediated by the kind of

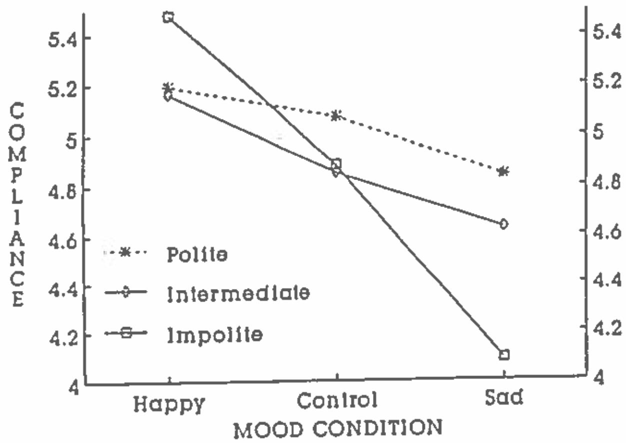

Figure 3.1. Affective influences on strategic responses to a naturalistic request: Positive mood increases and negative mood decreases compliance, and these mood effects are greatest in response to more impolite, unconventional requests that require more extensive processing (after Forgas, 1998b).

processing strategy people employ. These findings indicate that a comprehensive understanding of strategic social behaviors needs to incorporate a detailed consideration of how temporary affective states can impact on people's thoughts, action plans, and subsequent behaviors. Of course, mood may not influence reactions to unexpected encounters alone. In terms of our theoretical framework, mood effects should be even more marked on self-initiated interpersonal moves that are likely to involve more elaborate and extensive cognitive processing, such as the production of strategic verbal messages.

Mood Effects on Strategic Verbal Behaviors: The Case of Requesting

In one series of studies, we explored the effects of mood on strategic goal-oriented behaviors: the way people formulate and use verbal messages such as requests. Requesting is an intrinsically complex behavioral task characterized by goal pursuit and psychological ambiguity. Requests must be formulated with just the right degree of politeness so as to maximize compliance without risking giving offence. We expected that incidental mood should significantly influence the social mindset of requesters and their requesting strategies. We predicted that people will adopt a more confident, direct requesting style when experiencing a positive mood, consistent with the greater availability of positively valenced thoughts and associations in their minds as they constructively assess the situation (Forgas, 1998b, 1999a, 1999b). Further, in terms of the AIM, these mood effects should be particularly strong when the situation is more complex and demanding, and requires more substantive and elaborate processing strategies.

Mood was induced in an allegedly separate experiment by asking people to recall and think about happy or sad autobiographical episodes (Forgas, 1999a, Exp. 1). In a subsequent task, participants selected a more or less polite request formulation that they would use in an easy and a difficult, demanding request situation. Results showed that induced mood had a significant influence on request strategies. Happy participants preferred more direct, impolite requests, whereas sad persons used indirect, polite request alternatives. Further, these mood effects on requesting were significantly greater in the more difficult, demanding request situation that required more extensive, substantive processing strategies.

Very similar procedures were used in a follow-up experiment, but instead of prestructured requests, participants now formulated their own open-ended requests, which were subsequently rated for politeness and elaboration by two independent raters (Forgas, 1999a, Exp. 2). Results again showed that mood had a significant influence on these strategic behaviors. Happy persons produced significantly more impolite and less elaborate requests than did sad individuals, and mood effects were again greater in the more problematic and difficult situational context (Figure 3.2). These results confirm that moods can influence how people perceive and interpret social situations and how they formulate and execute subsequent interpersonal behaviors such as requests. But why should mood effects be greater on requests in a more difficult and demanding social situation? More difficult interpersonal tasks also require more elaborate processing, and according to the AIM, affect infusion should increase proportionally when more substantive processing is required to produce a social response.

This pattern was further confirmed in a third experiment in which participants were asked to select more or less polite request alternatives in a variety of different realistic situations (Forgas, 1999b, Exp. 1). Following an audiovisual mood induction (watching happy or sad films), participants selected more or less polite request forms they would use in each of 16 different request situations. Results showed that mood effects were greatest on decisions about using the most

Figure 3.2. Mood effects on producing strategic messages: Negative mood increases and positive mood decreases request politeness and elaboration, and these mood effects are significantly greater in more difficult, demanding social situations that require more extensive processing (after Forgas, 1999b).

direct, unconventional requests that are most likely to violate cultural conventions of politeness and should recruit the most substantive, elaborate processing strategies. These findings indicate that mood effects on interpersonal behaviors are indeed process-dependent, with affect infusion enhanced or reduced, depending on just how much open, constructive processing is required to deal with more or less demanding interpersonal tasks (Fiedler, 1991; Forgas, 1995a).

Nor are these effects restricted to controlled laboratory tasks. Similar effects were also obtained in a fourth, unobtrusive experiment looking at naturally produced requests (Forgas, 1999b, Exp. 2). After an audio-visual mood induction, the experimenter casually asked participants to get a file from a neighboring office while the next experiment was set up. All participants agreed. Their actual words in requesting the file were recorded by a concealed tape recorder, and subsequently were analyzed for politeness and other qualities. Results showed a significant mood effect on these natural, unobtrusively elicited social behaviors. Sad people used more polite, friendly, and elaborate forms, and happy people used more direct and less polite forms. Negative mood also increased the latency of requests. Sad persons delayed making their requests significantly longer than did control or happy persons, and were more polite, elaborate, and hedging, consistent with their

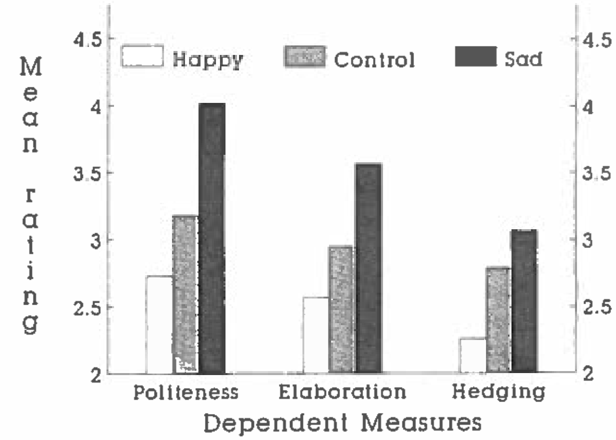

Figure 3.3. Mood effects on naturally produced requests: Positive mood increases and negative mood decreases the degree of politeness, elaboration, and hedging in goal-oriented strategic communications (after Forgas, 1999b).

more cautious, defensive behavioral strategies and the more extensive processing that these unconventional behaviors presumably required (Figure 3.3). An analysis of the subsequent recall of the requests confirmed that unconventional requests were also recalled significantly better. This confirms the predicted more elaborate, in-depth processing of these messages and supports the core prediction of the AIM that the greatest mood effects occur when more elaborate, substantive processing is used by a communicator.

Affective Influences on Strategic Social Encounters

As the previous studies suggest, even mild, temporary mood states can have a significant influence on the way people monitor social behaviors, the way they respond to unexpected situations, and the way they formulate and produce verbal messages such as requests. Is it possible that the same kinds of affective influences also occur in planning more complex, elaborate social encounters? In another series of experiments, we investigated affective influences on the regulation and performance of complex behavior sequences such as negotiating encounters (Forgas, 1998a). Positive, control, or negative mood was induced by giving participants positive, negative, or neutral feedback about their performance on a verbal test. Next, they engaged in an

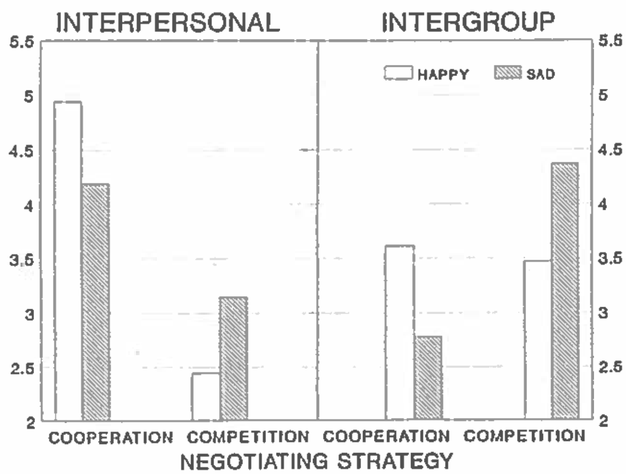

Figure 3.4. The effects of temporary mood on strategic behavior in negotiation: Positive mood increases and negative mood decreases cooperation in both interpersonal and intergroup bargaining encounters; the opposite mood effects were observed for competitive bargaining strategies (after Forgas, 1998a).

informal, interpersonal and a formal, intergroup negotiating task with another team in what they believed was a separate experiment. We were interested in how temporary moods might influence people's goal-setting strategies and behaviors. Results showed that participants who were in an induced positive mood set themselves higher and more ambitious goals, formed higher expectations about the forthcoming encounter, and formulated specific action plans that were more optimistic, cooperative, and integrative than did control or negative-mood participants. Furthermore, individuals who formulated cooperative goals as a result of feeling good actually behaved more cooperatively, and were more willing to make and reciprocate deals, than were those in a negative mood (Figure 3.4). Perhaps the most interesting finding was that these mood-induced differences in goal-setting and bargaining behavior actually resulted in more successful performances. People who felt good did significantly better in this bargaining task than did those who felt bad. These results provide relatively clear-cut evidence that even slight changes in mood due to an unrelated prior event can significantly bias the goals that people set for themselves, the action plans they formulate, and their subsequent interpersonal behaviors.

In terms of the AIM, these mood effects on interpersonal behaviors can be explained as due to the operation of affect priming mechanisms. Thinking about and planning a bargaining encounter is by definition a complex, indeterminate, and personally involving cognitive task in which substantive processing should be the dominant strategy adopted. Positive mood should selectively prime more positive thoughts and associations, and should ultimately lead to the formulation of more optimistic expectations and the adoption of more cooperative bargaining strategies. In contrast, negative mood should result in more pessimistic, negative thoughts and associations, leading to less ambitious goals and less cooperative and successful bargaining strategies.

Interestingly, the second experiment in this series showed that these mood effects were much less marked for individuals who scored high on individual differences measures such as Machiavellism and need for approval. In terms of the AIM, these individuals should have approached the bargaining task from a more predetermined, motivated perspective that limited the degree of open, constructive processing they employed and thus reduced the effects of affect infusion on their behaviors. In a way, their minds were made up about what to do even before they started, reducing the likelihood of incidental affect infusion. Such individual differences in a person's tendency to use open, constructive or guided, motivated processing strategies may significantly influence the extent to which affective states are likely to infuse social thinking and subsequent social behaviors (Rusting, 1998).

Affect Control and Behavior Control

The evidence so far suggests that even short-term and relatively low-intensity moods may have a strong influence on how people interpret and respond to social situations, as long as some degree of open, constructive processing is required. However, the relationship among affect, cognition, and behavior is not unidirectional. Just as affect can influence social thinking and behavior, changes in information processing strategies and behaviors can produce corresponding changes in the prevailing affective state. In other words, the affective aspects of the social mind exist in a closely interactive relationship with cognitive and behavioral processes.

How do people go about controlling and managing their own affective states? Arguably, one of the most common and important goals people have in everyday life is to maintain a reasonably positive, optimistic affective balance and a controlled state of mind despite the manifold challenges they face. The objectives of mood maintenance and mood regulation (Clark & Isen, 1982) probably play a disproportionately important role in the way many everyday behavioral and cognitive strategies are performed.

Accumulating evidence suggests that people may use a number of motivated strategies to control their affective states. These include selective exposure to mood-incongruent information (Erber & Erber, in press; Forgas, 1992a), recall of mood-incongruent memories (Sedikides, 1994), engaging in mood-incongruent behaviors (Cialdini & Kenrick, 1976), interacting with rewarding partners (Forgas, 1991), or distracting themselves from the source of their mood (Rusting, 1998). Within the AIM framework, the ongoing task of affect management and control can be best understood as the process of routinely and automatically switching between two complementary information processing strategies. Substantive processing typically results in affect infusion and the accentuation of the existing affective state. In contrast, motivated processing inhibits affect infusion and may produce targeted, affect-incongruent outcomes. We recently proposed such a preliminary affect management model (Forgas, Johnson, & Ciarrochi, 1998) based on relevant aspects of the AIM (Forgas, 1995a). A schematic outline of the affect management hypothesis is presented in Figure 3.5.

As this figure shows, the choice of either a substantive (affect infusion) or a motivated (affect control) processing strategy is determined by a combination of personal, situational, and task-related input variables and the extremity of the prevailing affective state. So far, research suggests that a switch to motivated rather than substantive processing is more likely when (1) the task is of direct personal relevance (Forgas, 1991), (2) people are aware of the cause or consequence of their mood (Berkowitz et al., 2000; Clore et al., 1994), (3) they score high on individual differences measures that indicate motivated processing tendencies (Forgas, 1998a), and (4) they experience an extreme or aversive affective state (Ciarrochi & Forgas, 1999; Forgas & Fiedler, 1996). Situational variables may also impact on processing and behavioral choices (Forgas, 1995a). For example, persons who expect to engage in a demanding interaction with a stranger may in fact prefer to tone down their mood by reading articles that are the opposite in affective tone to their own mood (Erber & Erber, in press).

A critical feature of the homeostatic affect management model is that it incorporates a feedback loop between the valenced outcome of the existing processing strategy and behavior and subsequent processing

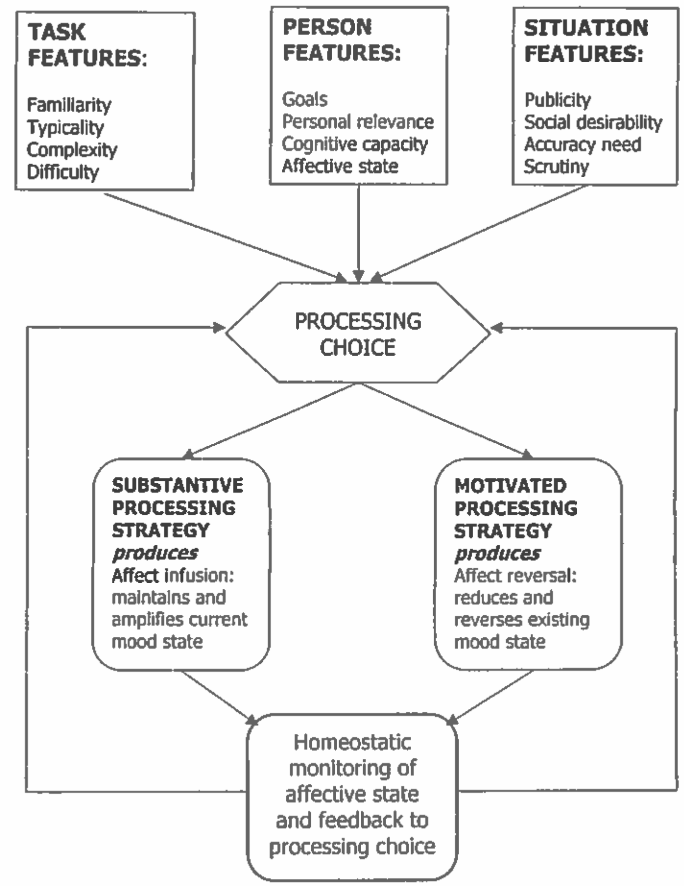

Figure 3.5. The mood management hypothesis: Substantive processing accentuates and motivated processing attenuates the valence of the existing affective state, and automatic switching due to a feedback loop between these two processing modes produces a homeostatic mood management system (after Forgas, Johnson, and Ciarrochi, 1998).

choices. As a consequence, the model provides for the possibility of continuous changes in processing strategies as a function of the prevailing mood state, a suggestion that is also supported by empirical evidence (Clark & Isen, 1982; Forgas, 1995a; Sedikides, 1994). In practical terms, this means that if, as a result of an existing substantive processing strategy and ongoing affect infusion, the level of negativity in a person's thinking and behavior reaches a threshold level, an automatic correction should take place that consists of a switch to motivated processing and a preference for mood-inconsistent thoughts and behaviors (Erber & Erber, in press).

The mood-management model predicts that negative mood initially leads to affect infusion and mood-congruent thoughts until a threshold level of negativity is reached, at which point people should switch to motivated mood control and mood-incongruent associations. Sedikides (1994) found some initial support for such a hypothesis. Recently, we (Forgas & Ciarrochi, 2000) conducted several additional studies to test the hypothesis that affect leads first to affect infusion, followed by a spontaneous switch to a motivated affect control strategy. In Study 1, participants who were feeling good or bad after recalling sad or happy events from their past generated a series of trait adjectives. Negative mood initially produced mood-congruent adjectives, but over time, subjects spontaneously switched to generating mood-incongruent (positive) adjectives consistent with the adoption of a motivated affect control strategy. In Study 2, a word completion task was used to measure mood effects on associations. A time-series regression analysis revealed that sad subjects rapidly changed from affect-congruent to affect-incongruent recall. It appears that once a threshold level of negativity was reached due to affect infusion processes, sad people spontaneously changed their cognitive and behavioral strategies and switched to motivated, incongruent recall as if seeking to control and eliminate their aversive mood (Figure 3.6).

In a further study, we also explored the role of individual difference variables such as self-esteem in affect management strategies. Previous work suggests that people low in self-esteem are less likely than others to engage in conscious affect control (Smith & Petty, 1995). To induce mood, participants received positive or negative feedback about their performance on a spatial abilities task. Next, they completed a series of sentences asking for self-decriptive adjectives. Results again indicated a clear "first congruent, then incongruent pattern," and this result was particularly marked for high self-esteem people. Those scoring high on self-esteem were able to rapidly eliminate a mood-congruent bias in their responses by producing mood-incongruent, positive descriptions after initially negative responses. In contrast, low self-esteem people provided mood-congruent responses throughout the entire task. This finding suggests that traits such as self-esteem may moderate people's ability to adopt motivated behavioral strategies to control their affective states. These studies (Forgas & Ciarrochi, 2000;

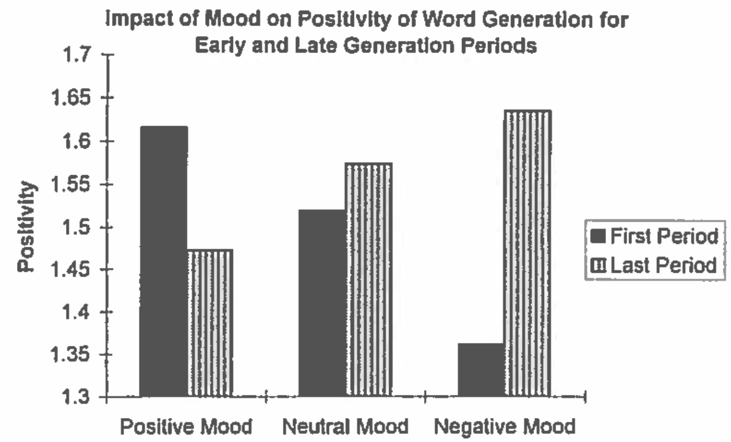

Figure 3.6. Evidence consistent with the automatic mood management hypothesis: Initially, mood-congruent associations are spontaneously reversed, and these effects are greater in a negative than in a positive mood (after Forgas and Ciarrochi, 2000).

Sedikides, 1994) support the notion of a homeostatic feedback-loop model of affect control, suggesting that fluctuating affective states can play an important role in changing processing strategies. Changes in processing style will, in turn, influence the degree of affect infusion and thus control the extremity of the mood state. Other research also suggests that simply making people aware of their mood can trigger motivated affect-control strategies (Berkowitz et al., 2000). In other words, affective states can be seen as integral components of the social mind, influencing our thoughts and actions but also regulated by subtle shifts in processing strategies and behaviors.

Summary and Conclusions

Engaging in strategic interactions with others is a recurrent feature of everyday social life. The ability to form relatively accurate judgments about the social world and to produce appropriate and effective interpersonal strategies is a key requirement for maintaining successful personal and working relationships. The theory of affect infusion and the supporting evidence presented here strongly suggest that mood states have a subtle yet highly significant and largely unrecognized influence on people's thoughts and interpersonal behaviors. As Thomas Mann's short story of the chess players suggests, fluctuating mood states, just like background music, can continuously influence our thoughts and associations and can eventually color our interpersonal behaviors.

These findings tell us something interesting about the social mind. Consistent with the findings of several other contributors to this volume, our results suggest that cognitive, affective, and motivational aspects of the social world are inextricably linked in the way we perceive and respond to other people. In a sense, psychology has suffered from its long-standing tradition of attempting to separate and study in isolation fundamental mental faculties such as cognition, affect, and conation (Hilgard, 1980). Consistent with the objectives of this book and the evidence presented by the other contributions, this chapter argued for a careful reintegration of feeling, thinking, and social behavior within a comprehensive theoretical framework such as the AIM. The research reviewed here documents the highly significant influence that emotions and moods can have on the way people perceive and interpret social situations, the kinds of goals and plans they formulate, and the way they execute and regulate their social behaviors. However, these effects are neither simple nor unidirectional. Cognitive information processing strategies play a key role in mediating mood effects on interpersonal behavior, and changes in thinking and behavior, in turn, can be a key strategy in managing affective states, as the studies on spontaneous mood management reviewed here suggest.

Why has it taken psychologists so long to incorporate affect in their conceptualization of the social mind? The influence of affective states on people's thoughts, judgments, and decisions has long been a source of interest and fascination to laypersons and philosophers alike. Psychologists were relatively late to recognize the importance of this phenomenon, probably because of the traditional separation of affect, cognition, and conation, the three "faculties of mind," throughout most of the history of the discipline (Hilgard, 1980). During the last two decades, considerable empirical evidence has demonstrated mood-congruent influences on learning, memory, and associations (Bower, 1981, 1991). Explanations of these phenomena have evolved from earlier psychoanalytic and conditioning approaches (Clore et al., 1994; Feshbach & Singer, 1957) to the more recent cognitive, information processing accounts. The affect priming hypothesis in particular (Bower, 1981, 1991) offers a particularly simple and parsimonious account of many mood-congruent phenomena, including judgmental and behavioral effects (Forgas & Bower, 1987; Forgas et al., 1984).

One recurring problem with incorporating affective phenomena into explanations of social behavior is that their effects are neither simple nor uniform. There is ample evidence for both mood congruity and incongruity in people's thoughts and behaviors, and these effects appear to be highly context sensitive. We suggested here that multi-process theories such as the AIM (Forgas, 1992a, 1995b) can offer a simple and parsimonious explanation of when and how affective states infuse purposive behaviors. We also reviewed a range of empirical studies illustrating how such principles can be translated into behavioral research, and how affective states can be shown to influence both simple and complex interpersonal behaviors. Mood effects were demonstrated on the formulation of and responses to requests (Forgas, 1998b, 1999a, 1999b), the planning and execution of strategic negotiations (Forgas, 1998a), and the monitoring and interpretation of complex interactive behaviors (Forgas, 1994; Forgas et al., 1984, 1990).

Further, we proposed that the need to control and manage affective states is itself one of the more important and recurring tasks of behavior regulation. We described a preliminary affect management model, which predicts that people may switch between two complementary processing strategies, substantive processing (producing affect infusion) and motivated processing (producing affect control) in an automatic, homeostatic system of mood management. Several experiments illustrating the spontaneous recovery from aversive moods by people engaging in targeted, mood-incongruent behaviors were also described (Forgas & Ciarrochi, 2000). It seems then that a comprehensive theory of the social mind needs to take explicit account of the critical role affect plays in the planning and execution of purposive behaviors.

This chapter aimed to provide a review and integration of mood effects on social judgments and interpersonal behaviors. The evidence suggests that affect infusion into judgments and behaviors is most likely to occur in the course of open, constructive processing. It also appears that affect priming is the mechanism most likely to lead to mood congruence in most everyday interpersonal tasks. Several counterintuitive results showing that more extensive, substantive processing enhances mood congruity provide especially strong support for the AIM (Forgas, 1992b, 1994, 1995b, 1998a, 1998b, 1999a, 1999b). Conversely, other experiments show the disappearance of mood congruity whenever people approach a cognitive task from a highly directed or motivated perspective (Forgas, 1991; Forgas & Fiedler, 1996; Sedikides, 1995). Indeed, the tendency to alternate between substantive and motivated processing strategies, producing affect infusion and affect control, respectively, may be thought of as part of an ongoing homeostatic strategy of controlled mood management (Forgas & Ciarrochi, 2000; Forgas et al., 1998). The kind of affect congruity in interpersonal behaviors demonstrated here may be important in many everyday situations, including the maintenance and management of intimate relationships, interaction in organizations, and clinical situations (Baron, 1987; Forgas & Moylan, 1987; Mayer, Gaschke, Braverman, & Evans, 1992; Salovey, O'Leary, Stretton, Fishkin, & Drake, 1991; Sedikides, 1992). Indeed, the more people need to engage in open, constructive processing, the more likely that affect will infuse their interpersonal responses. Even such highly involved and complex strategic tasks as coping with relationship conflicts showed such mood-congruent biases (Forgas, 1994).

We started this discussion by suggesting that there may be a clear scientific basis for age-old speculations about the infusion of affect into thinking and behavior, as exemplified by Thomas Mann's story of the chess players. We conclude by observing that the social mind is indeed a composite of affective, cognitive, and motivational reactions to social situations, and the relationship between them is complex and multiply determined. By postulating four distinct information processing strategies, the AIM offers a parsimonious account for a variety of mood effects on interpersonal behaviors observed in the literature. We hope that by further clarifying the characteristics and conditions conducive to affect infusion into interpersonal behavior, the present review will encourage growing interest in this important research area.

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