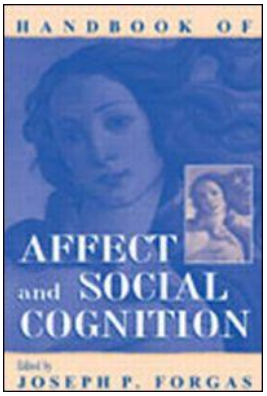

Handbook of Affect and Social Cognition

Joseph P. Forgas

Affect, Cognition, and Interpersonal Behavior: The Mediating Role of Processing Strategies

Publication details
https://www.routledgehandbooks.com/doi/10.4324/9781410606181.ch14
Joseph P. Forgas
Published online on: 01 Nov 2000

V

Affective Influences on Cognitively Mediated Social Behaviors

14

Affect, Cognition, and Interpersonal Behavior: The Mediating Role of Processing Strategies

Joseph P.Forgas
University of New South Wales
Sydney, Australia

Affect infuses every aspect of social life. Feelings, moods, and emotions constitute a critical part of how we perceive and judge ourselves and others, and how we plan and execute interpersonal behaviors. This book

Joseph P.Forgas is of the School of Psychology, University of New South Wales, Sydney 2052; email: jp.forgas@unsw.edu.au

bears eloquent testimony to the universality and importance of affective influences on social cognition. It is all the more surprising, then, to find that for most of the brief history of psychology as a scientific discipline, social cognition and behavior were studied as if affect was at best irrelevant, and at worst a source of bias and disruption. As Hilgard (1980) noted, one reason for this is probably the traditional division of psychology's subject matter into three fundamental "faculties of mind"—affect, cognition and conation—and the implicit assumption that these "faculties" can and should be studied independently of each other. Although cognition and conation have received intense attention in the past, affect has remained relatively neglected, as the introductory review in Chapter 1 suggests.

It was not until the early 1980s that a concentrated attempt was made to incorporate affective variables into psychological research on cognition and behavior. Parallel discoveries in social cognition as well as in neuroanatomy and neuropsychology confirmed that affect is an essential and indispensable component of social thinking and interpersonal behavior (see also chapters by Adolphs & Damasio, chap. 2, this volume; and Ito & Cacioppo, chap. 3, this volume). There can be little doubt that moods and emotions are a crucial and highly adaptive part of managing complex social relationships and situations. In an affective void, rational reasoning alone often leads to dysfunctional and maladaptive judgments and decisions.

How does affect influence the way people perceive, interpret, plan, and execute strategic interpersonal behaviors? The information available in the social world is typically unmanageably complex, indeterminate, and ambiguous. People must rely on highly generative and constructive information-processing strategies to select, interpret, learn, and remember social information. It is largely because social behavior requires highly constructive and generative processing strategies that affective states can either indirectly (through affect priming effects), or directly (through affect-as-information effects) influence the kind of information people pay attention to and the kind of processing strategies they adopt. Ultimately, affect infusion into social cognition also influences how individuals plan and execute interpersonal behaviors.

We have all experienced times when a positive mood spreads to and infuses everything we think and do. When we feel happy and satisfied, all seems to be well with the world: We are happy with our job, satisfied with our intimate relationships, and optimistic about the future. The research to be reviewed here shows that positive mood not only influences thoughts and judgments, but also promotes more cooperative, confident, and optimistic

interpersonal behaviors. In contrast, bad mood produces an air of gloom that seems to spread over our thoughts and judgments: We are critical of our partners, pessimistic about the future, and become cautious and defensive in our interpersonal strategies (Forgas, 1994; Forgas, Levinger, & Moylan, 1994).

AFFECT CONGRUENCE IN INTERPERSONAL BEHAVIOR

There are several early experiments that suggest that affective states can significantly influence cognition and subsequent interpersonal behaviors. Fear and anxiety can produce more apprehensive and negative assessments of others, as Feshbach and Singer (1957) found in an early study. In another classic series of experiments, Schachter (1959) showed that induced anxiety can significantly influence realistic interpersonal preferences. People who were anxious sought to spend time with partners who were in the same predicament, and presumably most able to share (and alleviate) this aversive affective experience. Several experiments in the 1960s and 1970s found that evaluations of and reactions to others can be significantly influenced by a previously induced affective state (Griffitt, 1970). In these experiments, induced affective state became readily associated with evaluations of an interaction partner, and distorted subsequent judgments and behaviors in a mood-congruent direction.

Although affect congruence in thinking and judgments is commonly found both in laboratory experiments and in everyday life, this is by no means a universal phenomenon. Sometimes, affect fails to have a congruent influence on cognition, and frequently, an opposite, mood-incongruent effect is observed (Erber & Erber, chap. 13, this volume; Sedikides, 1994). To complicate matters even further, affective states do not only influence the content (positivity or negativity) of cognition (what people think), but also the process of cognition (the kind of information strategies used) (Bless, 2000; Fiedler, 2000; Schwarz & Clore, 1988). The task of a comprehensive theory of affect and social cognition is thus to explain when and how these different effects occur.

The main objective of this chapter is to argue that any understanding of affective influences on strategic interpersonal behaviors requires a careful analysis of the information-processing strategies that mediate these effects. People may adopt a variety of different information-processing styles when dealing with social information. Depending on the kind of processing

strategies they use, we may observe affect congruence or incongruence, or perhaps no affective influences at all on their behaviors. This occurs because some processing styles invite and facilitate the constructive use of affect as a source of information in cognitive and behavioral tasks. In contrast, other processing styles inhibit affect infusion and even produce affect-incongruent outcomes. Of particular interest here is how temporary moods may influence interpersonal behaviors.

Moods 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)" (Forgas, 1992a, p. 230). Unlike emotions, moods are typically not in the focus of our consciousness and have little cognitive content and structure. Yet it is precisely because of their low intensity and limited cognitive content that moods may often have a more long-lasting, subtle, and unconscious influence on people's thinking and social behaviors than do distinct emotions (Forgas, 1992a, 1993, 2000; Sedikides, 1995). One integrative theory, the multiprocess Affect Infusion Model (AIM; Forgas, 1995a) was developed to explain the subtle interaction between affect and cognition. The AIM assumes that affect can have both informational and processing effects on cognition, and assigns a central role to different processing strategies in the mediation of mood effects.

AFFECT INFUSION: A QUESTION OF PROCESSING STYLE?

One of the most productive affect-cognition theories was proposed by Bower (1981), who argued that affective states, once activated, can selectively prime and spread activation to associated cognitive constructs. As a result, affect-consistent ideas are more likely to reach threshold activation and be used in guiding selective attention, learning, associations, and recall. This theory continues to offer an elegant and parsimonious explanation of many affect-congruent phenomena. An alternative model was put forward by Schwarz and Clore (1988), who suggested that affect-congruence in some evaluative judgments may occur because people mistakenly rely on their prevailing affective state as information about their evaluative reactions to a target. This "How do I feel about it?" heuristic can explain some cases of mood congruence in judgments as long as the existing mood state is not already attributed to another cause.

A problem for both of these models is that affect congruence in thinking and behavior is not always observed. A comprehensive theory of affect

infusion thus needs to be able to specify the circumstances when affect congruence should be expected and when it should be absent or even reversed. Furthermore, such a model must also explain the processing conditions likely to facilitate the use of affect priming, or the affect-as-information mechanisms in producing mood congruence. The AIM (Forgas, 1995a) was designed to fulfill this task. The AIM predicts that affect infusion is most likely whenever circumstances promote elaborate, open, and constructive information-processing style (Fiedler, 1991; Forgas, 1992b, 1995b). Only a brief overview of the AIM is included here, as a more detailed description of these ideas is available elsewhere (Forgas, 1992a, 1995a).

Affect infusion may be understood as the process whereby affectively loaded information becomes incorporated into and exerts a congruent influence on cognitive, judgmental, and behavioral processes (cf. Forgas, 1995a). However, such incidental incorporation of affectively loaded information into thinking and behavior is only likely to occur in circumstances when a social task can only be performed using constructive, generative, and highly elaborate information-processing strategies that allow and, indeed, facilitate the inadvertent use of affectively primed material. In contrast, tasks that call for the simple reproduction of a preexisting response, or are dominated by a particular motivational objective should be impervious to affect infusion. The AIM thus assumes that (a) the extent and nature of affect infusion should be dependent on the kind of processing strategy that is used, and (b) that all things being equal, people should use the least effortful and simplest processing strategy capable of producing a response.

The AIM identifies four alternative processing strategies: *direct access, motivated, heuristic,* and *substantive* processing. The first two of these strategies, direct access and motivated processing, involve highly targeted and predetermined patterns of information search and selection, strategies that limit the scope for incidental affect infusion. The *direct access strategy* simply involves the direct retrieval of a preexisting response. As people possess a rich store of preformed, crystallized responses to many social situations, they are likely to use this strategy whenever more extensive and constructive processing is not warranted. The AIM predicts that such direct access processing is most likely when the task is highly familiar, and when no strong cognitive, affective, situational, or motivational cues call for more elaborate processing.

The *motivated strategy* in turn involves highly selective and targeted information search that is directed by a particular motivational objective. Again, this strategy precludes the incidental use of affectively primed information, or the heuristic use of affect as information. Affective states

may also trigger motivated processing in the service of mood maintenance or mood repair (Clark & Isen, 1982). A number of other goals have been identified that also produce motivated processing and result in the elimination or even reversal of affect infusion (see also Erber & Erber, chap. 13, this volume). Such social motives that limit affect infusion include self-evaluation maintenance, ego-enhancement, achievement motivation, affiliation, or in-group favoritism (Forgas, 1990, 1991; Forgas & Fiedler, 1996; Forgas, Bower, & Moylan, 1990).

Thus, both direct access and motivated processing tend to limit affect infusion effects. In contrast, the remaining two processing strategies, *heuristic* and *substantive* processing require more constructive and open-ended information-search strategies, and thus facilitate affect infusion. Heuristic processing should be used when there are no prior responses to access and no direct motivation that guides a response, and so people seek to compute a constructive response with minimal effort. In this case, individuals may rely on cognitive shortcuts or heuristics and consider only limited information when responding. This is most likely when the task is simple, familiar, of little personal relevance, and cognitive capacity is limited and there are no motivational or situational pressures for more detailed processing. Heuristic processing leads to affect infusion as long as people rely on affect as the heuristic cue, and adopt the "How do I feel about it?" heuristic to produce a response (Clore, Schwarz, & Con way, 1994; Schwarz & Clore, 1988).

When these simpler strategies are inadequate, people actually need to engage in *substantive processing* to deal with a social situation. Substantive processing requires individuals to select, encode, and interpret novel information and relate this information to their preexisting memory-based knowledge structures in order to respond. This kind of processing is most likely when the task is atypical, complex, or novel, there is adequate processing capacity, and there is no motivational goal to dominate processing. As substantive processing is an inherently constructive, generative strategy, affect may selectively prime access to and facilitate the use of related thoughts, ideas, memories, and interpretations. The AIM makes the interesting and counterintuitive prediction that affect infusion (and mood congruence) should be increased when more extensive and constructive processing is required to deal with more complex, demanding, or novel tasks. Several studies measuring processing latencies provided direct evidence showing a strong relationship between more substantive processing producing greater affect infusion (Forgas, 1992b, 1993, 1995b, 1998a,b; Forgas & Bower, 1987).

The AIM also specifies a range of contextual variables related to the *task,* the *person,* and the *situation* that influence processing choices. For example, greater task familiarity, complexity, and typicality should recruit more substantive processing. Personal characteristics that influence processing style include motivation, cognitive capacity, personality traits (see also Mayer, chap. 19, this volume; Rusting, chap. 17, this volume; and Suls, chap. 18, this volume) as well as affective state itself. Situational features that have an impact on processing style include social norms, public scrutiny, and social influence by others (e.g., Forgas, 1990). An important feature of the AIM is that it recognizes that affect itself can also influence processing choices. As several studies now show (e.g., Bless, 2000; Fiedler, 2000), positive affect typically generates a more top-down, schematic, and heuristic processing style, whereas negative affect triggers more piecemeal, bottom-up, and vigilant processing strategies. Such a positive-negative processing asymmetry can be explained in terms of cognitive capacity effects (Mackie & Worth, 1991), functional, evolutionary mechanisms, or motivational influences (Clark & Isen, 1982). The AIM highlights the need for a careful analysis of processing variables such as memory and processing latency measures, as it is only in this way that we can empirically link processing variables with the behavioral consequences of affect. The key prediction of the AIM is the *absence* of affect infusion when direct access or motivated processing is used, and the *presence* of affect infusion during heuristic and substantive processing, as the experimental evidence reviewed later in this chapter suggests.

In order to show that more or less constructive processing directly influences affect infusion, in a number of studies we explicitly varied the extent to which social tasks required more or less substantive processing. In several experiments, participants were asked to respond to more or less complex, atypical, and unusual versus simple and typical persons and situations. Unusual people and situations should require more constructive processing, and should thus produce greater affect infusion (Forgas, 1992b, 1993). An analysis of recall memory and processing latency data confirmed the process mediation of these mood effects. More atypical social information took longer to process, and there was correspondingly greater affect infusion into these judgments. Other studies used nonverbal stimuli (pictures of more or less complex, demanding targets) (Forgas, 1995b), and again found that affect infusion was significantly greater for unusual, atypical tasks. A mediational analysis specifically confirmed that processing strategy had a significant mediating effect on the extent of affect infusion.

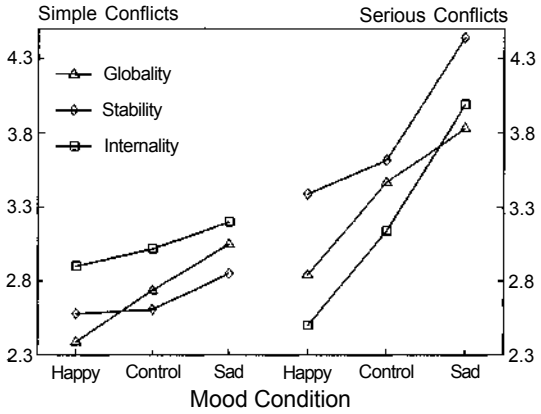

FIG. 14.1. The effects of mood on explanations for more or less serious conflicts in people's intimate personal relationships. Both positive and negative moods have a greater influence on the way more demanding, serious conflicts are explained, consistent with the more elaborate, substantive processing required to deal with this information. (Data based on Forgas, 1994.)

Somewhat surprisingly, similar effects were found when happy or sad persons made judgments about their own intimate relationships (Forgas, 1994; see also Fig. 14.1). In a counterintuitive pattern, these mood effects were consistently greater when more extensive, constructive processing was required to deal with more complex and serious rather than simple and everyday interpersonal issues. It seems then that even judgments about highly familiar people and events are more prone to affect infusion when a more substantive, constructive processing strategy is used. The principle, as predicted by the AIM, is that affect infusion in social cognition and behavior is greatest when people need to think more substantively to respond to a task. This is often the case when strategic interpersonal behaviors are planned and executed, as the next section suggests.

AFFECTIVE INFLUENCES ON BEHAVIOR INTERPRETATION

Interacting with others requires constructive, generative information processing, as people must evaluate and plan their behaviors in inherently complex and uncertain social situations (Heider, 1958). To the extent that affective states may influence thinking and judgments, they should also influence subsequent social behaviors that are the outcome of constructive thinking. The on-line interpretation of observed behaviors is one of the most

fundamental and automatic social-cognitive tasks people face in everyday life, and is likely to be a significant antecedent of behavioral responses. Does affect influence the outcome of such simple behavior interpretation tasks? As making sense of observed behaviors by definition requires some degree of inferential, substantive processing, there should be affect infusion into behavior interpretation.

This hypothesis was tested (Forgas, Bower, & Krantz, 1984) by providing happy or sad participants with a videotape of their own social interactions and asking them to monitor and rate their own and their partners' behaviors. There was a significant affective bias on behavior monitoring. Happy people "saw" significantly more positive and skilled and fewer negative and unskilled behaviors both in themselves and in their partners than did sad subjects. Objective observers who received no mood manipulation displayed no such monitoring biases. These results show that there is significant affect infusion into how interpersonal behaviors are monitored and interpreted, even when objective, videotaped evidence is readily available. In terms of the AIM, these effects occur because affect priming influences the kinds of interpretations, constructs, and associations that become available as people evaluate intrinsically complex and indeterminate social behaviors in the course of substantive, inferential processing. The same smile that is seen as "friendly" in a good mood may be judged as "awkward" when the observer is in a negative mood; discussing the weather could be seen as "poised" in good mood but "boring" when in a bad mood, and so on.

Later experiments confirmed these effects with more realistic judgments. People in a negative mood were also found to make more critical, self-deprecatory interpretations of their own behaviors, but people in a positive mood selectively looked for and found lenient and optimistic explanations for identical outcomes (Forgas, Bower, & Moylan, 1990). Rather surprisingly, such mood-induced distortions can also influence reactions to highly familiar, intimate events involving close partners (Forgas, 1994). In this study, partners in long-term intimate relationships were asked to evaluate behaviors in more or less serious interpersonal conflicts. Positive mood produced lenient, self-serving explanations. As suggested earlier, these mood effects became even stronger when the events judged were more complex and serious and thus required more constructive processing (Fig. 14.1). It seems then that affect tends to spontaneously infuse even such mundane tasks as the on-line monitoring of observed social behaviors, and these mood effects become stronger as the task becomes more complex and constructive.

AFFECT AND EYEWITNESS MEMORY FOR OBSERVED INTERACTIONS

People frequently witness various incidents in everyday life, and later rely on their memory to describe the event to others and to inform their own responses and interpersonal strategies. Such eyewitness memories play a very important role in interpersonal behavior, as well as in the legal system, where they are accorded special evidential status. However, as perceivers use highly constructive strategies to recall their experiences, eyewitness testimonies may well be contaminated by subsequent, unrelated information (Loftus, 1979). Recently, several experiments in our lab investigated the influence of affect on such eyewitness distortions. The events to be remembered were presented on videotapes. Some time later, participants were exposed to a mood induction, and then received some questions about the incidents that either included or did not include "planted" misleading details about the witnessed episodes. After a lengthy interval comprising several interference tasks, participants' recognition memory for the incidents was tested. We found that positive mood when the misleading information was presented significantly increased the mistaken incorporation of planted information into eyewitness memories, whereas negative mood decreased the same. It seems that the experience of positive affect produced a more top-down, superficial, and less attentive processing style, increasing the likelihood that false information suggested by the questioning will be incorporated into eyewitness memories. Negative affect in contrast triggered a more attentive bottom-up and externally focussed processing style, reducing the incidence of eyewitness errors. These effects were replicated in a naturalistic study, in which students were asked to recall a staged incident during a lecture. Once again, students feeling good while exposed to planted information were more likely to show incorrect memory, whereas negative affect reduced the incidence of such mistakes. These results—together with the evidence from other contributions to this book—confirm that even relatively mild, transient affective states can have a marked influence on the way people process, interpret and remember social information (see also Bower & Forgas, chap. 5; Clore, Gasper, & Garvin, chap. 6; Fiedler; Harmon-Jones, chap. 8; and Petty, DeSteno, & Rucker, chap. 10, this volume). Does affect infusion also impact on actual interactive behaviors? This possibility was explored in several studies.

AFFECTIVE INFLUENCES ON SPONTANEOUS INTERACTION

To the extent that the spontaneous on-line production of interactive behaviors also requires a degree of open, constructive information processing, we may expect that temporary mood should influence the responses people select. We may thus expect happy people to enact more friendly, likeable and rewarding interpersonal behaviors, while those in a sad mood may act and behave in a more constrained, unfriendly and less rewarding way, a prediction that was evaluated in a recent experiment carried out in collaboration with Anoushka Gunawardene (Forgas & Gunawardene, 1999). Female undergraduates were first induced into a positive or negative mood by watching happy or sad videotapes as part of an 'unrelated' study. Next, they participated in an interview about student life with a confederate, and their behavior was recorded by a hidden video camera.

The videotapes were subsequently watched and rated by trained observers blind to the manipulations who carefully recorded the valence, frequency and intensity of a wide variety of both verbal and nonverbal interactive behaviors, and also provided global ratings about the targets' behavior. There was a clear pattern of mood-congruence in these spontaneous behaviors. Happy participants displayed significantly more smiles, communicated more, disclosed more personal information about themselves and generally behaved in a more poised, skilled and rewarding manner. Sad participants were generally rated by observers as significantly more passive, uncomfortable, incompetent, shy, unfriendly, disinterested and tense than were happy participants (Figure 14.2)

It seems that even a minor affective experience such as watching a brief unrelated film has a highly significant and noticeable influence on subsequent interpersonal behaviors that can be readily detected by observers. It is remarkable that these behavioral effects occur reliably even in a highly structured interaction such as an interview. Mood should have an even more dramatic effect on social behaviors in open-ended, unstructured interactions. In addition to demonstrating such global affect infusion into interpersonal behaviors, we also need to assess the role of affect in the production and use of specific interpersonal behaviors, such as the formulation of requests. This was undertaken in a series of recent studies (Forgas, 1999a,b).

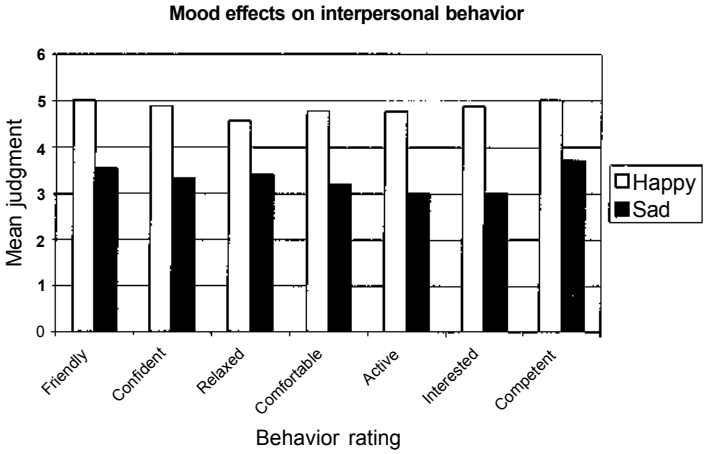

FIG. 14.2. Mood effects on spontaneous interpersonal behavior: people experiencing happy mood behave in a more friendly, positive and confident way than people in a negative mood. (Data based on Forgas & Gunawardene, 1999).

AFFECT INFUSION AND INTERPERSONAL STRATEGIES: MAKING A REQUEST

Asking a person to do something for us—requesting—is one of most difficult and complex interpersonal tasks we face in everyday life (Gibbs, 1985). When formulating a request, people are by definition uncertain of the outcome, and so must phrase their request with great care so as to maximize the likelihood of compliance (by being more direct) without risking giving offence (by not being *too* direct). Requesting is thus an interpersonal task that is characterized by psychological ambiguity and requires constructive, substantive processing to produce just the right degree of directness and politeness.

In terms of the AIM, affective states should significantly influence requesting strategies. When in a positive mood, people should adopt a more confident and direct requesting style as a result of the greater availability and use of positively valenced thoughts and associations in their minds as they constructively assess the situation (Forgas, 1998b, 1999a,b). Furthermore, in terms of the AIM, these mood effects should be further magnified when the request situation is more complex and demanding, and requires more substantive and elaborate processing strategies.

This prediction was tested in several experiments. In one study, mood was induced by asking participants to recall and think about happy or sad autobiographical episodes in an allegedly separate task (Forgas, 1999a, Experiment 1). Next, participants were asked to identify more or less polite request forms they would prefer to use in an easy and in a difficult and demanding request situation. As predicted, participants in a happy mood used more direct, impolite requests, whereas sad persons preferred more cautious, indirect, and polite request alternatives. Results also showed that these mood effects on requesting strategies were much stronger when the request situation was more demanding and difficult, and required more extensive, substantive processing to evaluate.

In a follow-up experiment, happy or sad participants were asked to formulate their own open-ended requests, which were subsequently rated for politeness and elaboration (Forgas, 1999a, Experiment 2). Mood again had a significant influence. Those in a positive mood produced significantly more direct, impolite, and less elaborate requests than did individuals in a negative mood, and these mood effects were greater when the request situation was more difficult and problematic. In a further study, participants who were feeling happy or sad after watching videotapes were asked to select more or less polite request alternatives they would use in a variety of realistic social situations (Forgas, 1999b, Experiment 1). This time, results showed that affective influences on request preferences were greatest on decisions about using direct, impolite, and unconventional requests that most clearly violate cultural conventions of politeness, and should recruit the most substantive, elaborate processing strategies.

Overall, these results establish that affect has a significant influence on people's constructive interpretation of social situations and their subsequent interpersonal behaviors. The results also indicate that affective influences on social behaviors are highly process dependent. It appears that affect infusion is significantly increased or reduced depending on just how much open, constructive processing is required to deal with a more or less demanding interpersonal task.

Of course, the studies reported so far relied on laboratory procedures and hypothetical tasks. Are these effects also likely to occur in real-life interpersonal situations? In order to explore the ecological validity of this phenomenon, a further experiment was carried out using unobtrusive methods to explore affective influences on naturally produced requests (Forgas, 1999b, Experiment 2). Affect was induced by asking participants to view happy or sad films. Next, in an apparently impromptu development,

the experimenter casually asked participants to get a file from a neighboring office while the next experiment was set up. All participants agreed. In fact, their actual words used in requesting the file were recorded by a concealed tape recorder in the neighboring office, and their requests were subsequently analyzed for politeness and other qualities.

Results confirmed that there was a significant affective influence on these naturally produced requests. Negative mood resulted in significantly more polite, indirect, friendly, and more elaborate request forms. Positive mood in turn produced less polite, more direct, and less elaborate requests (Fig. 14.3). Affective state also influenced the latency of the request: Those in a negative mood were more hesitant and delayed making their requests significantly longer than did control or happy persons. In order to assess the degree of elaborate processing involved in producing these requests, participants' recall memory for the exact words they used was also assessed later on. Results showed that recall accuracy—an index of elaborate processing—was positively related to the degree of affect infusion. This pattern supports the prediction of the AIM that greater mood effects should occur when more elaborate, substantive processing is used by a communicator. These results also confirm the findings reported earlier, and show that affect has a critical influence on strategic social behaviors in realistic social situations, with negative mood producing more polite, elaborate, and hedging request choices.

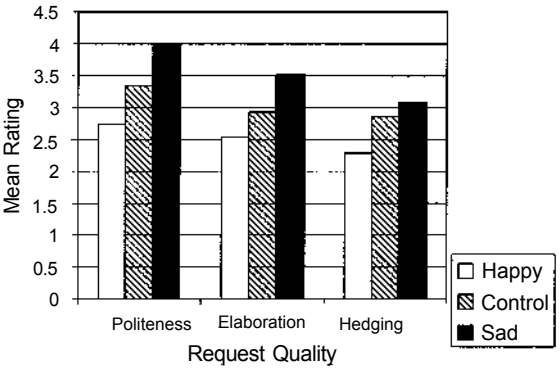

FIG. 14.3. Mood effects on the level of politeness, elaboration, and hedging in naturally produced requests: positive mood produces less polite, less elaborate, and less hedging request forms. (Data based on Forgas, 1998b).

AFFECTIVE INFLUENCES ON RESPONDING TO UNEXPECTED SOCIAL SITUATIONS

The previous experiments suggest that deliberative, planned interpersonal behaviors are subject to significant affect infusion effects, as long as some degree of elaborate, constructive processing is used. Frequently, however, we do not have the luxury to plan and deliberate about our social moves, but must respond almost instantaneously to a new social situation. To the extent that such rapid reactions also require some degree of constructive processing, responses should be subject to affect infusion effects. This prediction was evaluated in a series of recent field experiments (Forgas, 1998b). Being approached unexpectedly by another person with a request represents one of the simplest kinds of interpersonal tasks in which a rapid reaction involving constructive cognitive processing is required. In these studies, we assessed the role of induced affective states on how people evaluate and respond to such a situation.

The scene of the study was a university library. Affect was induced by leaving folders containing pretested pictures (or text) designed to induce positive or negative mood on some unoccupied library desks, with an instruction "Please open and consider this." Students entering the library and occupying the desks were surreptitiously observed to ensure that they fully exposed themselves to the mood induction. 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 the requesting incident, a second confederate approached the participants and explained that the request was in fact staged, and asked them to complete a brief questionnaire assessing their perception and evaluation of the request and the requester, and their recall of the request.

Consistent with the predictions, there was a clear mood-congruent pattern in how people behaved in this situation. Students who received the negative mood induction were significantly more likely to report a critical, negative evaluation of the request and the requester and were less inclined to comply than were positive mood participants. In a particularly interesting result, induced mood and the level of politeness of the request also had a significant interactive effect on people's responses. It turns out that mood effects were greater on the evaluation of and responses to impolite, unconventional requests that required more substantive processing. The more extensive processing recruited by impolite requests was also confirmed

by better recall memory for these messages later on. Polite and conventional requests, however, were apparently processed less substantively, were less influenced by mood, and were also remembered less accurately later on.

These results confirm that affect infusion into the planning and execution of impromptu social behaviors is significantly mediated by the kind of processing strategy people employ. Of course, mood may not only influence reactions to unexpected social encounters. In terms of our theoretical framework, affect infusion should be even greater on strategically planned social encounters—such as a negotiating situation—that allow participants to adopt elaborate and extensive cognitive processing strategies to plan and execute their behaviors.

AFFECTIVE INFLUENCES ON PLANNED STRATEGIC ENCOUNTERS

Although many social situations call for rapid, impromptu responses like the ones investigated and described in the previous section, there are also numerous instances when social actors can deliberate and plan their interpersonal strategies well in advance. If affect infusion is a function of substantive, elaborate processing, we might expect affective states to play a particularly important role in such elaborately planned interpersonal encounters. In several experiments, we investigated affective influences on the planning and performance of complex behavior sequences such as negotiating encounters (Forgas, 1998a). Mood was induced by giving participants positive, negative, or neutral feedback about their performance on a verbal test.

After the mood induction, participants engaged in an informal, interpersonal and a formal, intergroup negotiating task with another team in what they believed was a separate experiment. The question we were interested in was how temporary moods might influence people's goals, plans, and, ultimately, their behaviors in this interaction. Results showed an interesting pattern. Those participants who were in an induced positive mood set themselves higher and more ambitious negotiating goals, formed higher expectations about the success of the forthcoming encounter, and also formulated specific action plans that were more optimistic, cooperative, and integrative than did control or negative mood participants. Those individuals who formulated more cooperative goals as a result of feeling good actually behaved more cooperatively and were more willing to use integrative strategies, and make and reciprocate deals than were those in a negative mood (Fig. 14.4).

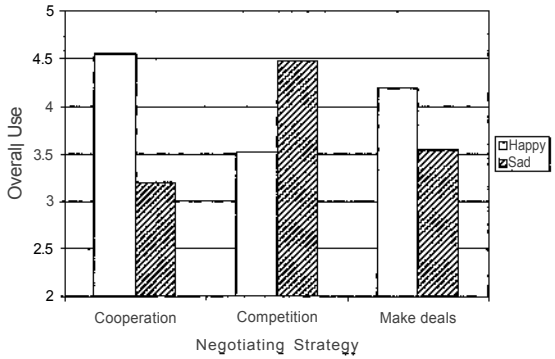

FIG. 14.4. Mood effects on bargaining and negotioation strategies: positive mood increases cooperation and deal-making, and negative mood increases competitive strategies both in interpersonal and in intergroup negotiation. (Data based on Forgas, 1998a).

Surprisingly, these mood-induced differences in goal setting and bargaining behavior actually led to a significant difference in bargaining outcomes. Negotiators who experienced positive affect and were more co-operative and integrative achieved significantly better outcomes than did those who were feeling bad. These findings clearly suggest that even slight changes in affective state due to an unrelated prior event can influence the goals that people set for themselves, the action plans they formulate, and the way they ultimately behave in strategic interpersonal encounters.

What are the cognitive mechanisms responsible for these effects? In terms of the AIM, mood effects on interpersonal behaviors that require constructive processing can be explained as due to the operation of affect priming mechanisms. When people face an uncertain and unpredictable social encounter, such as a negotiating task, their thoughts and plans about their bargaining strategies must be based on open, constructive, and inferential thinking. They must go beyond the information given and must rely on their thoughts and memories to construct a response. Positive mood should then selectively prime more positive thoughts and associations, and the greater activation and accessibility of these ideas should ultimately lead to the formulation of more optimistic expectations and the adoption of more cooperative and integrative bargaining strategies. However, negative affect should prime more pessimistic, negative memories and associations, and should lead to the planning and use of less optimistic, less cooperative, and, ultimately, less successful bargaining strategies.

Further experiments exploring this phenomenon also showed that mood effects on negotiation are subject to significant individual differences between negotiants. When we assessed participants in terms of their scores on individual difference measures such as machiavellianism and need for approval, we found that these measures significantly mediated mood effects. High macchiavellians and those high in need for approval were less influenced by temporary mood in formulating their plans and behaviors than were low scorers on these measures. Theoretically, as implied by the AIM, affect infusion should be constrained for individuals who habitually approach interpersonal tasks such as a bargaining encounter from a highly motivated, predetermined perspective. Such motivated processing should limit the degree of open, constructive thinking they employ when planning their strategies, and thus reduce the likelihood of affectively primed thoughts influencing their responses and their behaviors. It is almost as if high macchiavellians and those high in need for approval had their minds made up about what to do even before they started, thus limiting the extent of incidental affect infusion. There is now growing evidence suggesting that individual differences related to how people process social information play an important role in mediating affective influences on social cognition and behavior (see also Mayer, chap. 19; Rusting, chap. 17; and Suls, chap. 18, this volume).

It seems, then, that although some individuals are habitually open to affective influences, others may have a strong tendency to rely on motivated processing to control and limit their affective reactions to social situations. It turns out that there are a number of individual difference variables that mediate affect infusion into social judgments and behavior, and their effects can either increase or reduce affect dependence. For example, people who score high on traits such as Openness to Feelings (Costa & Macrae, 1985) seem to be significantly more likely to be influenced by affect in a mood-congruent direction in the way they perceive and evaluate information than are low scorers on this measure (Ciarrochi & Forgas, in press). Other studies showed that trait anxiety also significantly moderates the influence of negative affect on people's responses to a threatening outgroup (Ciarocchi & Forgas, 1999). Low trait-anxious people showed affect congruence and responded negatively to an outgroup. However, highly trait-anxious individuals displayed an opposite pattern: their reactions were more positive when they experienced negative mood. Such reversal of affect congruence in social reactions is consistent with the adoption of motivated processing by individuals who are especially anxious and defensive in social situations. These results confirm the general principle that affect congruence is

significantly moderated by different processing strategies linked to enduring personality characteristics.

AFFECTIVE INFLUENCES ON PERSUASIVE COMMUNICATION

Although the evidence so far suggests that positive mood tends to promote more cooperative and successful interpersonal behaviors, not all strategic encounters function like this. Sometimes, the more cautious and situation oriented processing produced by bad moods can also produce distinct advantages. For example, producing high-quality persuasive messages to get others to agree with us may benefit from negative affect as aversive mood makes people pay greater attention to the demands of the situation and process their responses in a more careful, piecemeal fashion (Bless, 2000; Fiedler, 2000; Forgas, 1998a,b).

There has been a surprising dearth of work on affective influences on how persuasive messages are *produced*. Yet amateur persuaders—that is, all of us—must think on their feet, plan and produce their persuasive strategies on-line. This question was investigated in several recent unpublished experiments (Forgas, Ciarrochi, & Moylan, 2000). In the first study, videotapes were used to induce 59 volunteer student participants into positive or negative moods. Next, they were asked to write persuasive messages supporting or opposing (1) the proposition that student fees should be increased, and (2) the issue of Aboriginal land rights in Australia. Their arguments were subsequently rated for quality, persuasiveness, and valence by two judges who achieved an inter-rater reliability of .86. Mood had a strong influence on argument quality. Those in a negative mood produced significantly higher quality and more persuasive arguments than did happy persuaders on both issues and irrespective of the position they argued, indicating the cross-situational robustness of this result. Mood also influenced argument valence: happy persons produced more positive, and sad persons produced more negative arguments. Almost identical results were obtained in two follow-up experiments using different mood induction methods and different argument topics, confirming the reliability of these results.

A further experiment involved participants interacting with a 'partner' through a computer keyboard. This experiment also manipulated the motivation to be persuasive by offering some participants a significant reward (the chance to win highly desired movie passes). Two raters blind to the manipulations rated each argument for quality, complexity,

persuasiveness, originality, and valence. There was a significant mood main effect: those in a negative mood produced significantly higher quality arguments than the neutral group who in turn did better than the positive group. This mood effect was partly dependent on the reward manipulation. Mood had a greater effect on argument quality in the low reward condition than the high reward condition. This finding is consistent with the Affect Infusion Model, and shows that mood effects on information processing—and subsequent social influence strategies—are likely to be strongest in the absence of motivated processing. The provision of a reward reduced mood effects on argument quality by imposing a strong external influence on how the task was approached and thereby presumably overriding more subtle mood effects.

These experiments thus provide convergent evidence that mood can produce profound behavioral differences in the quality and effectiveness of the persuasive arguments people produce. These effects were robust across a variety of situations and topics and using a range of different mood induction procedures. It appears then that negative affect can also produce certain strategic advantages in interpersonal behavior when a more careful, externally focused and bottom-up information processing style is adopted. Negative affect was previously found to lead to the elimination of some attribution errors and the reduction of eye-witness memory distortions (Forgas, 1998c).

THE INTERACTION BETWEEN AFFECT AND COGNITIVE-PROCESSING STRATEGIES

The studies reviewed so far suggest that affect has a strong influence on how people interpret and respond to social situations as long as some degree of open, constructive processing is required that allows affect infusion to occur. However, the relationship among affect, cognition, and behavior is not unidirectional. Just as processing strategies can mediate the nature and extent of affect infusion, affect in turn can influence information-processing style (Bless, 2000; Fiedler, 2000). The cognitive consequences of affect may play an important role in interpersonal behavior and judgments. We found that the kind of vigilant, systematic attention to stimulus details recruited by negative moods tends to reduce or even eliminate such common interpersonal biases as the fundamental attribution error (Forgas, 1998c). Furthermore, as we have seen, positive affect tends to increase and negative affect tends to reduce the likelihood of other kinds of cognitive mistakes

in social thinking, such as the corruption of eyewitness recollections (Forgas, 1999c).

The tendency to ignore or underestimate situational influences on observed social behavior and focus on internal causes instead has been labeled the fundamental attribution error (FAE). One reason why the FAE occurs is because social actors are lazy information processors and seem to pay selective attention to the most conspicuous information—the person—and neglect important but less salient situational information (Gilbert & Malone, 1995). In other words, people seem to naturally assume a "unit relation" between the actor and his/her behavior, attributing causality internally, and may only correct for situational pressures subsequently, if at all (Heider, 1958). As we know, positive affect produces a more top-down, schematic and heuristic processing style that is less sensitive to situational information (Bless, 2000), it can be predicted that the additional consideration of external constraints necessary to avoid the FAE may be impaired in good moods, and improved in bad moods.

In these experiments, participants were provided with behavioral information about an actor (an essay written by a student participating in a debate) that expressed attitudes that were either freely chosen or assigned, and were either highly desirable or undesirable (Forgas, 1998c). The key finding was that people in a negative mood were less likely and those in a positive mood were more likely to commit the fundamental attribution error and assume that the observed behavior was internally caused, even when they were provided with clear evidence that the behavior was, in fact, coerced. This occurred most when the essays advocated a highly salient, unpopular protesting position. This effect was confirmed in further unobtrusive field studies. People who just saw happy or sad films made judgments about the writers of popular and unpopular essays in an ostensible "street survey." Again, positive affect increased and negative affect decreased the FAE. Subsequent mediational analyses (Forgas, 1998c, Experiment 3) established that these attributional biases were due to affect-induced differences in processing strategies. These studies show that affect has a significant influence on processing strategies and the way people explain the causes of desirable and undesirable social behaviors.

Research demonstrating the processing consequences of affect may also be relevant to explaining how people manage to calibrate and maintain a balanced mood state in interpersonal situations. Previous research suggests that affect management may involve selective exposure to mood-incongruent information (Erber & Erber, chap. 13, this volume; Forgas, 1992a), recall of mood-incongruent memories (Sedikides, 1994), engaging in mood-

incongruent behaviors, interacting with rewarding partners (Forgas, 1991), or seeking distraction from the source of the mood (Rusting, chap. 17, this volume).

In several papers, we proposed a homeostatic model of spontaneous mood management that assumes that people automatically switch between substantive processing (producing affect infusion) and motivated processing (producing affect control) to maintain affective equilibrium (Forgas, in press; Forgas, Johnson, & Ciarrochi, 1998). Such a homeostatic affect management model predicts that once affect infusion reaches a threshold level as a result of substantive processing, an automatic switch toward motivated processing and mood-incongruent thinking should occur to restore affective homeostasis. Similar suggestions were made in some earlier studies by Clark and Isen (1982) and by Sedikides (1994).

We (Forgas & Ciarrochi, 2000) conducted several studies to test that affect infusion is eventually followed by a spontaneous switch to a motivated affect control strategy. In one study, participants who were feeling good or bad after thinking about happy or sad events from their past generated a series of trait adjectives. Mood initially produced mood-congruent adjectives, but over time, subjects spontaneously switched to recalling mood-incongruent adjectives. The same "first congruent, then incongruent" pattern of responses was repeated in two additional experiments. It appears, then, that once a threshold level of affect intensity was reached due to affect-infusion processes, people may spontaneously change their cognitive and behavioral strategies and turn to motivated, incongruent responses in order to control their mood. We also found that this ability to control moods by spontaneously switching from congruent to incongruent associations was particularly marked for high self-esteem people, consistent with the critical role of individual differences in mediating affective influences on cognition (see also Mayer, chap. 19; Rusting, chap. 17; and Suls, chap. 18, this volume). These studies suggest the intriguing possibility that fluctuating affective states can play an important role in producing spontaneous changes in cognitive and behavioral responses in order to maintain affective equilibrium over time.

SUMMARY AND CONCLUSIONS

This chapter argues that mild everyday affective states and moods have a significant influence on the way people perceive and interpret social behaviors, and the way they plan and execute strategic interactions. Furthermore, different information-processing strategies play a key

role in explaining these effects. Multiprocess theories such as the Affect Infusion Model (AIM; Forgas, 1995a) offer a simple and parsimonious explanation of when and how affect infusion into social behaviors occurs. Several experiments found that more extensive, substantive processing enhances mood-congruity effects, consistent with the predictions of the AIM (Forgas, 1992b, 1994, 1995b). The chapter also reviews a number of empirical studies demonstrating how such principles can be translated into behavioral research, and how affective states can have an impact on both simple and complex interpersonal behaviors. The experiments described here show that affect can influence the formulation of and responses to requests (Forgas, 1998b, 1999a,b), 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). In contrast, affect infusion is absent whenever a social cognitive task could be performed using a simple, well-rehearsed direct access strategy or a highly motivated strategy. In these conditions, there is little need and little opportunity for incidentally primed mood-congruent information to infuse information processing (Fiedler, 1991; Forgas, 1995a).

Several of these experiments demonstrate that affect infusion occurs not only in the laboratory, but also in many real-life situations. Consistent with other chapters included in this book, affect can influence relationship behaviors, group behaviors, organizational decisions, consumer preferences, and health-related behaviors (Forgas & Moylan, 1987; Mayer et al, 1992; Salovey et al., 1991; Sedikides, 1992; see also Bodenhausen, Mussweiler, Gabriel, & Moreno, chap. 15; and Salovey, Detwiler, Steward, & Bedell, chap. 16, this volume). Even such highly involved and complex tasks as dealing with relationship conflicts can be subject to a mood-congruent bias (Forgas, 1994). Indeed, the tendency to alternate between substantive and motivated processing strategies, producing affect infusion and affect control, respectively, could be considered as part of an ongoing homeostatic strategy of controlled mood management (Forgas, in press; Forgas & Ciarrochi, 2000; Forgas, Johnson, & Ciarrochi, 1998). We still know relatively little about the homeostatic mechanisms that help us to maintain our affective states within relatively narrow limits, but it is highly likely that different information processing strategies play an important role in such a system.

Other research reviewed here also shows that positive and negative affective states have an important and asymmetric processing effect on cognition. We found that positive mood increases and negative mood decreases judgmental errors in how interpersonal behavior is explained,

such as the fundamental attribution error (Forgas, 1998c). Mood also influences memory mistakes, such as the accuracy of eyewitness memory about observed interactions (Forgas, 1999c).

To conclude, this chapter emphasizes the closely interactive relationship between affective states and different information-processing strategies as the key to understanding affective influences on social cognition and interpersonal behavior. Theories such as the AIM offer a parsimonious account of the links between affect and cognition, and can explain the conditions likely to facilitate or inhibit affect-infusion processes. Much of the evidence reviewed here suggests that affect infusion is most likely in conditions requiring constructive, substantive processing. Other processing strategies such as direct access or motivated processing result in the absence or even reversal of affect infusion. Obviously, a great deal more research is needed before we can fully understand the multiple influences that affect has on interpersonal behavior. This chapter could do little more than review some of the recent evidence and, it is hoped, stimulate further interest in this fascinating area of inquiry.

ACKNOWLEDGMENTS

This work was supported by a Special Investigator award from the Australian Research Council, and the Research Prize by the Alexander von Humboldt Foundation to Joseph P.Forgas. The contribution of Joseph Ciarrochi, Stephanie Moylan, Patrick Vargas, and Joan Webb to this project is gratefully acknowledged. Please address all correspondence in connection with this paper to Joseph P.Forgas, School of Psychology, University of New South Wales, Sydney 2052, Australia; email *jp.forgas@unsw.edu.au.* For further information on this research project, see also website at *www. psy. unsw.edu.au/~joef/jforgas.htm*

REFERENCES

Bless, H. (2000). The interplay of affect and cognition: The mediating role of general knowledge structures. In J.P.Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. xxx). New York: Cambridge University Press.

Bower, G.H. (1981). Mood and memory. *American Psychologist, 36,* 129–148.

Ciarrochi, J.V., & Forgas, J.P. (1999). On being tense yet tolerant: The paradoxical effects of trait anxiety and aversive mood on intergroup judgments. *Group Dynamics: Theory, Research and Practice, 3,* 227–238.

Ciarrochi, J.V., & Forgas, J.P. (in press). The pleasure of possessions: Affect and consumer judgments. *European Journal of Social Psychology.*

Clark, M.S., & Isen, A.M. (1982). Towards understanding the relationship between

feeling states and social behavior. In A.H.Hastorf & A.M.Isen (Eds.), *Cognitive social psychology* (pp. 73–108). New York: Elsevier-North Holland.

Clore, G.L., Schwarz, N., & Conway, M. (1994). Affective causes and consequences of social information processing. In R.S.Wyer & T.K.Srull (Eds.), *Handbook of social cognition,* 2nd ed. (pp. 323–417). Hillsdale, NJ: Lawrence Erlbaum Associates.

Costa, P.T., & McCrae, R.R. (1985). *The NEO Personality Inventory Manual.* Odessa, FL: Psychological Assessment Resources.

Damasio, A.R. (1994). *Descartes' error.* New York: Grosste/Putnam.

Feshbach, S., & Singer, R.D. (1957). The effects of fear arousal and suppression of fear upon social perception. *Journal of Abnormal and Social Psychology, 55,* 283–288.

Fiedler, K. (1991). On the task, the measures and the mood in research on affect and social cognition. In J.P.Forgas (Ed.), *Emotion and social judgments* (pp. 83–104). Oxford: Pergamon Press.

Fiedler, K. (2000). Towards an integrative account of affect and cognition phenomena using the BIAS computer algorithm. In J.P.Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 223–252). New York: Cambridge University Press.

Forgas, J.P. (1990). Affective influences on individual and group judgments. *European Journal of Social Psychology, 20,* 441–453.

Forgas, J.P. (1991). Mood effects on partner choice: Role of affect in social decisions. *Journal of Personality and Social Psychology, 61,* 708–720.

Forgas, J.P. (1992a). Affect in social judgments and decisions: A multi-process model. In M.Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 227–275). New York: Academic Press.

Forgas, J.P. (1992b). On bad mood and peculiar people: Affect and person typicality in impression formation. *Journal of Personality and Social Psychology, 62,* 863–875.

Forgas, J.P. (1993). On making sense of odd couples: Mood effects on the perception of mismatched relationships. *Personality and Social Psychology Bulletin, 19,* 59–71.

Forgas, J.P. (1994). Sad and guilty? Affective influences on the explanation of conflict episodes. *Journal of Personality and Social Psychology, 66,* 56–68.

Forgas, J.P. (1995a). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin, 117*(1), 39–66.

Forgas, J.P. (1995b). Strange couples: Mood effects on judgments and memory about prototypical and atypical targets. *Personality and Social Psychology Bulletin, 21,* 747–765.

Forgas, J.P. (1998a). On feeling good and getting your way: Mood effects on negotiation strategies and outcomes. *Journal of Personality and Social Psychology, 74,* 565–577.

Forgas, J.P. (1998b). Asking nicely? Mood effects on responding to more or less polite requests. *Personality and Social Psychology Bulletin, 24,* 173–185.

Forgas, J.P. (1998c). Happy and mistaken? Mood effects on the fundamental attribution error. *Journal of Personality and Social Psychology, 75,* 318–331.

Forgas, J.P. (1999a). On feeling good and being rude: Affective influences on language use and request formulations. *Journal of Personality and Social Psychology, 76,* 928–939.

Forgas, J.P. (1999b). Feeling and speaking: Mood effects on verbal communication strategies. *Personality and Social Psychology Bulletin, 25,* 850–863.

Forgas, J.P. (1999c). *Mood effects on eyewitness accuracy.* Manuscript under review.

Forgas, J.P. (Ed.) (2000). *Feeling and thinking: The role of affect in social cognition.* New York: Cambridge University Press.

Forgas, J.P. (in press). Managing moods: Towards a dual-process theory of spontaneous mood regulation. *Psychological Issues.*

Forgas, J.P., & Bower, G.H. (1987). Mood effects on person perception judgements. *Journal of Personality and Social Psychology, 53,* 53–60.

Forgas, J.P., Bower, G.H., & Krantz, S. (1984). The influence of mood on perceptions of social interactions. *Journal of Experimental Social Psychology, 20,* 497–513.

Forgas, J.P., Bower, G.H., & Moylan, S.J. (1990). Praise or blame? Affective influences on attributions for achievement. *Journal of Personality and Social Psychology, 59,* 809–818.

Forgas, J.P., & Ciarrochi, J. (2000). Mood congruent and incongruent thoughts over time: The role of self-esteem in mood management efficacy. Manuscript submitted for publication.

Forgas, J.P. Ciarrochi, J.V., & Moylan, S. (2000). Affective influences on the production of persuasive massages. Manuscripts, University of New South Wales, Sydney, Australia.

Forgas, J.P., & Fiedler, K. (1996). Us and them: Mood effects on intergroup discrimination. *Journal of Personality and Social Psychology, 70,* 36–52.

Forgas, J.P., & Gunawardene, A. (1999). Mood effects on interpersonal behaviour. Manuscript, University of New South Wales, Sydney, Australia.

Forgas, J.P., Johnson, R., & Ciarrochi, J. (1998). Affect control and affect infusion: A multiprocess account of mood management and personal control. In M.Kofta, G.Weary, & G.Sedek (Eds.), *Personal control in action. Cognitive and motivational mechanisms* (pp. 155–189). New York: Plenum Press.

Forgas, J.P., Levinger, G., & Moylan, S. (1994). Feeling good and feeling close: Mood effects on the perception of intimate relationships. *Personal Relationships, 2,* 165–184.

Forgas, J.P., & Moylan, S.J. (1987). After the movies: The effects of transient mood states on social judgments. *Personality and Social Psychology Bulletin, 13,* 478–489.

Gibbs, R. (1985). Situational conventions and requests. In J.P.Forgas (Ed.), *Language and social situations* (pp. 97–113). New York: Springer.

Gilbert, D.T., & Malone, P.S. (1995). The correspondence bias. *Psychological Bulletin, 117,* 21–38.

Griffitt, W. (1970). Environmental effects on interpersonal behavior: Ambient effective temperature and attraction. *Journal of Personality and Social Psychology, 15,* 240–244.

Heider, F. (1958). *The psychology of interpersonal relations.* New York: Wiley.

Hilgard, E.R. (1980). The trilogy of mind: Cognition, affection, and conation. *Journal of the History of the Behavioral Sciences, 16,* 107–117.

Loftus, E. (1979). *Eyewitness testimony.* Cambridge: MIT Press.

Mackie, D., & Worth, L. (1991). Feeling good, but not thinking straight: The impact of positive mood on persuasion. In J.P.Forgas (Ed.), *Emotion and social judgments* (pp. 201–220). Oxford: Pergamon Press.

Mayer, J.D., Gaschke, Y.N., Braverman, D.L., & Evans, T.W. (1992). Mood congruent judgment is a general effect. *Journal of Personality and Social Psychology, 63,* 119–132.

Salovey, P., O'Leary, A., Stretton, M., Fishkin, S., & Drake, C.A. (1991). Influence of mood on judgments about health and illness. In J.P.Forgas (Ed.), *Emotion and social judgments* (pp. 241–262). Oxford: Pergamon Press.

Schachter, S. (1959). *The psychology of affiliation.* Palo Alto: Stanford University Press.

Schwarz, N., & Clore, G.L. (1988). How do I feel about it? The informative function of affective states. In K.Fiedler & J.P.Forgas (Eds.), *Affect, cognition, and social behavior* (pp. 44–62). Toronto: Hogrefe.

Sedikides, C. (1992). Changes in the valence of self as a function of mood. *Review of Personality and Social Psychology, 14,* 271–311.

Sedikides, C. (1994). Incongruent effects of sad mood on self-conception valence: It's a matter of time. *European Journal of Social Psychology, 24,* 161–172.

Sedikides, C. (1995). Central and peripheral self-conceptions are differentially influenced by mood: Tests of the differential sensitivity hypothesis. *Journal of Personality and Social Psychology, 69*(4), 759–777.