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The Emerging View of Emotion as Social Information

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Abstract

Emotions play an important role in coordinating social life. In the last decade, traditional research on the intrapersonal effects of emotions has been complemented by a growing focus on interpersonal effects. I propose that a primary function of emotion at this interpersonal level is to disambiguate social interaction by providing information about the expresser's feelings, goals, motives, and intentions. Building on this idea, I introduce the emotions as social information (EASI) model. The model posits that emotional expressions influence observers by eliciting affective reactions in them and/or by triggering inferential processes, depending on the observer's information processing motivation and ability and on social-contextual factors. I discuss implications of this view for theorizing about the social functions of emotions; the evolution of emotion; the influence of emotional expressivity, emotion recognition, and emotion regulation; and the role of culture.

Keywords: Emotion; Social Information; Social Functions; EASI Model
The Emerging View of Emotion as Social Information

*The face has the only skeletal muscles of the body that are used, not to move ourselves,*
*but to move others* (Smith & Scott, 1997, p. 229)

The word emotion is derived from the Latin *emovere*, which means “to move out.” The very meaning of the term thus aptly captures what I will argue is the essence of emotion—bringing out, and making known to observers, the internal state of the individual experiencing the emotion. Although emotions can be privately experienced, more often than not they are expressed in one way or another. People may be unaware that their inner feelings are reflected on their faces, in their voices, in their bodily postures, or in their choice of words (e.g., Byron, 2008; Ekman & O'Sullivan, 1991; Manstead, Wagner, & MacDonald, 1984; Scherer, Feldstein, Bond, & Rosenthal, 1985); they may actively share their emotional experiences with others (Rimé, Mesquita, Philippot, & Boca, 1991); or they may purposefully express emotions to influence others (Clark, Pataki, & Carver, 1996; Fitness, 2000; Frank, 1988). Regardless of whether they are spontaneous or premeditated, emotional expressions are often observed by others, who in turn respond to them.

Most theorizing and research on emotion has focused on the personal experience and intrapersonal consequences of emotions. In fact, some have argued that these intrapersonal consequences of emotional experience are the cornerstone of emotion’s functionality. Consider the classic example of a person who sees a snake, feels afraid, and runs away, thereby increasing chances of surviving and contributing to the gene pool. Although I certainly do not dispute this individual-level functionality, it does not tell the full story about emotion. After all, if emotions were only functional at the individual level, why would they show on our faces? The very fact that emotions are expressed implies that they may serve
social functions and have interpersonal consequences. These interpersonal consequences are the focus of the present article.

The idea that emotions have interpersonal consequences is not new. Several authors have argued that emotions play a regulating role in social interaction, influencing not only the behavior of the 'emoter' but also that of others in the social environment (e.g., Côté, 2005; Elfenbein, 2007; Fischer & Manstead, 2008; Frijda & Mesquita, 1994; Hareli & Rafaeli, 2008; Keltner & Haidt, 1999; Levenson, 1994; Manstead, 1991; Morris & Keltner, 2000; Oatley & Johnson-Laird, 1987; Parkinson, 1996; Parkinson, Fischer, & Manstead, 2005; Parrott, 2001; Tiedens & Leach, 2004). What is unclear, however, is what these effects look like. How do individuals respond to others' emotions? Which processes drive these responses? And how are these processes and effects shaped by the social context? In addressing these questions I first discuss how emotional expressions help individuals to make sense of ambiguous social situations. Then I describe a new theory of the interpersonal effects of emotions—the emotions as social information (EASI) model (Van Kleef, 2009; Van Kleef, De Dreu, & Manstead, in press)—and review supportive evidence. Finally, I consider implications for theorizing about the social functionality and evolution of emotion, the role of emotional expressivity, the importance of decoding accuracy and emotion regulation, and the influence of culture.

**Emotions Disambiguate Social Situations**

People have limited insight into each other's feelings, goals, needs, desires, and social intentions. This lack of information poses a challenge to social interaction. If people do not know what goes on in other people's minds, it is difficult to relate to them. Is the person across the street of good intent or should he be avoided? Can the car salesman be trusted or is he planning to pull some trick? Oftentimes we don't know, and therefore we have to turn to subtle and indirect signals available in the situation to determine how to act. Thus people may
use each other's emotional expressions to make sense of ambiguous social situations (Manstead & Fischer, 2001; Van Kleef et al., in press).

Emotions arise as a result of an individual's conscious or unconscious evaluation (appraisal) of some event as relevant to a particular concern or goal (Frijda, 1986; Lazarus, 1991). Because specific emotions arise in specific situations, observing a particular emotion in another person provides relatively differentiated information about how that person regards the situation. For instance, according to appraisal theories (e.g., Frijda, 1986; Lazarus, 1991; Roseman, 1984; Scherer, Schorr, & Johnstone, 2001; Smith, Haynes, Lazarus, & Pope, 1993), happiness arises when goals have been met (or good progress is being made towards attaining them) and expectations are positive. Expressions of happiness therefore signal that the environment is appraised as favorable and benign. Anger arises when a person's goals are being frustrated and s/he blames someone else for it. Expressions of anger therefore signal appraisals of goal blockage and other blame.

Because discrete emotions have such distinct appraisal patterns and core relational themes (Smith et al., 1993), they provide a wealth of information, not just to oneself (Frijda, 1986; Schwarz & Clore, 1983) but also to one's social environment (Keltner & Haidt, 1999; Manstead, 1991; Van Kleef, 2009). For instance, emotional expressions convey information about the expresser's inner feelings (Ekman, 1993), social motives (Fridlund, 1994), and orientation toward other people (Hess, Blairy, & Kleck, 2000; Knutson, 1996). In addition, emotional expressions inform observers about the expresser's appraisal of the situation (Manstead & Fischer, 2001).

This informational function of emotional expressions is nicely illustrated by classic work on social referencing, which showed that infants were more likely to cross a visual cliff when their mother smiled at them than when she looked fearful (e.g., Klinnert, Campos, Sorce, Emde, & Svejda, 1983; Sorce, Emde, Campos, & Klinnert, 1985). Presumably the
mother's emotional display signals that the environment is safe (happiness) or unsafe (fear), which informs the infant's behavior. Interestingly, this research also found that a caregiver's emotional expressions are particularly influential in ambiguous situations, suggesting that individuals seek and use the information conveyed by others' emotional expressions to make sense of the situation (including other people in that situation) and to guide their behavior.

When sufficiently motivated, individuals may distill complex and highly useful pieces of information from others' emotional expressions (Van Kleef et al., in press). For instance, when one is the target of another's anger, one may infer that one did something wrong, and this inference may in turn inform one's behavior (e.g., apologizing, changing one's conduct). When confronted with another person's happiness, one may conclude that things are going well, and stay the course. When confronted with another's sadness, one might infer that the other faces a loss and has low coping potential, and offer help or consolation. In short, by paying close attention to other people's emotions, individuals acquire information about their needs, desires, and intentions—information that is vital for the successful navigation of social life.

**The Emotions as Social Information (EASI) Model**

The emotions as social information (EASI) model (Van Kleef, 2009; Van Kleef et al., in press; see Figure 1) is rooted in a social-functional approach to emotion (e.g., Fischer & Manstead, 2008; Frijda & Mesquita, 1994; Keltner & Haidt, 1999; Parkinson, 1996). The model rests on the assumption that social interactions are often ambiguous, and that emotions help to disambiguate the situation by providing information about the expresser's feelings, desires, motives, and intentions. The EASI model extends previous theorizing on the social functions of emotions by specifying two distinct processes through which emotional expressions influence behavior at the interpersonal level: affective reactions and inferential processes. I describe both mechanisms in turn.
Affective Reactions

Emotional expressions often evoke affective reactions in observers, which may subsequently influence their behavior. First, emotions can spread from expresser to observer via emotional contagion processes, involving mirror neuron activity, mimicry, and afferent feedback (e.g., Hatfield, Cacioppo, & Rapson, 1994). Second, emotional expressions influence impressions and interpersonal liking, perhaps in part through the social intentions and relational orientations they convey (e.g., Knutson, 1996)—an idea that is also reflected in interpersonal circumplex theories that highlight the reciprocity of affiliation (e.g., Leary, 1957). For instance, expressions of happiness typically increase liking and relationship satisfaction, and expressions of anger decrease liking and satisfaction (e.g., Clark & Taraban, 1991; Van Kleef, De Dreu, & Manstead, 2004a, 2004b). Such affective reactions may shape subsequent behavior.

Early suggestive evidence for the role of affective reactions came from studies on personal relationships. In an illustrative study described by Clark and colleagues (1996), participants enrolled in a text-proofing experiment. They were led to believe that they would work in a group of three, and that one participant could leave early while the other two would proofread each other's work. Apparently, the other two participants were hoping that they would be allowed to leave early, and the participant could choose who would be dismissed and who had to stay. Participants then received the work of the other participants, which included ratings of how they were supposedly feeling at the time. Participants who were described as angry were less likely to be selected to leave early than those who were described as happy, an effect that was presumably driven by decreased liking of angry individuals (Clark & Taraban, 1991).

Research on emotion in work groups also points to the important role of affective reactions in shaping behavioral responses to others' emotional expressions. For instance,
Barsade (2002) found that laboratory groups including a happy confederate developed more pleasant group emotions, which in turn promoted cooperation and reduced conflict in the group. Conversely, groups that contained an angry confederate developed a negative group climate and exhibited poorer cooperation.

The mediating role of affective reactions was further demonstrated in studies on leadership and emotion. Sy, Côté, and Saavedra (2005) had participants perform a tent-building exercise in groups. The groups were coached by a leader who had just viewed a film clip inducing a positive or a negative mood. Teams that were coached by a leader in a positive mood developed a positive mood themselves, which resulted in better coordination. By contrast, teams that were coached by a leader in a negative mood developed a negative mood themselves, which undermined successful cooperation (see also Van Kleef, Homan, Beersma, van Knippenberg, van Knippenberg, & Damen, 2009).

Finally, the role of affective reactions has been demonstrated in studies on conflict and negotiation. Friedman, Anderson, Brett, Olekalns, Goates, & Lisco (2004) used data from e-Bay dispute resolution incidents to explore the interpersonal effects of anger communication on dispute resolution success. They found that expressions of anger elicited negative emotional reactions (including reciprocal anger), which in turn dramatically decreased the likelihood of settlement. Likewise, research on negotiation showed that expressions of anger trigger strong negative emotional reactions and a desire for revenge, thus motivating competitive and retaliatory behavior (Van Kleef & Côté, 2007). Similarly, a study on coalition formation showed that participants disliked angry parties, which often led those parties to be excluded from the coalition (Van Beest, Van Kleef, & Van Dijk, 2008). Finally, a series of ultimatum bargaining experiments showed that bargainers who received angry (as opposed to happy) communications were more likely to deceive their counterpart and to make
less generous offers (Van Dijk, Van Kleef, Steinel, and Van Beest, 2008)—effects that were mediated by reciprocal anger on the part of the participant.

In short, numerous studies across different domains of social interaction (personal relations, team work, leader-follower relations, dispute resolution, negotiation, and coalition formation) converge in demonstrating that the effects of one person's emotional expressions on another's behavior are often driven by affective reactions. Expressions of happiness elicit reciprocal feelings of happiness and positive impressions, which are conducive to constructive interpersonal interactions and cooperation. Expressions of anger elicit reciprocal anger and negative impressions, which undermine cooperative social exchange.

**Inferential Processes**

According to the EASI model, emotional expressions can also wield interpersonal influence by triggering inferential processes in observers (Van Kleef, 2009). For instance, observers may infer information about the expresser's feelings, attitudes, relational orientation, and behavioral intentions (Keltner & Haidt, 1999), which in turn influence the observer's behavior. The implications of an emotional display covary with the context, but the basic informational value of discrete emotions generalizes across situations (Van Kleef, 2009). To come back to an earlier example, anger arises when a person's goals are being frustrated and s/he blames someone else for it (Smith et al., 1993). When one is the target of an anger expression, one may therefore infer that one did something wrong and this inference may in turn inform one's behavior. More specific inferences depend on salient properties of the situation. For instance, a husband who shows up late for dinner with his wife may infer from her anger that she is not amused and that he should be on time in the future. In a negotiation context, one party may infer from her counterpart's anger that her demands were too high and must be lowered. And in a performance context, followers may infer from their
leader's anger that she is not satisfied with their performance and that more effort must be expended.

Several studies in various domains of social interaction point to the role of inferential processes. For instance, research has shown that individuals infer from others' expressions of guilt that they value the relationship and are willing to make amends (Baumeister, Stillwell, & Heatherton, 1994). Similarly, displays of embarrassment are interpreted as signals that the other feels bad about a transgression (Keltner & Buswell, 1997), which increases forgiveness and helps to restore cooperative relationships (Semin & Manstead, 1982). Other work has found that people use other's emotional expressions to infer their level of power, attributing greater power and higher status to individuals who expressed anger rather than sadness (Tiedens, 2001).

Such inferential processes also shape behavior. In a series of negotiation studies, participants who were confronted with an angry counterpart inferred that the other had ambitious goals and was unlikely to concede, which led them to make substantial concessions. Participants with a happy opponent, in contrast, inferred that the other was close to being satisfied, and therefore they conceded little (Van Kleef et al., 2004a, 2004b). Individuals thus used their partner's emotional expressions as a source of information to inform their behavior. Recent work suggests that skillful use of such information can benefit the greater good. In integrative negotiations, where negotiators may give in on less important issues to get a better deal on more important issues, the information about relative preferences that is conveyed by a counterpart's emotional expressions can lead negotiators to discover potential for win-win agreements that satisfy all parties' main concerns (Pietroni, Van Kleef, De Dreu, & Pagliaro, 2008).

Similar inferential processes were observed in leadership research. A recent study revealed that work teams used the emotions of their leader to draw inferences regarding their
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performance level (Van Kleef et al., 2009). Teams worked on a task for 15 minutes, after which they received feedback from their leader (a trained actor) via a video connection. This feedback was delivered in an angry or happy way, with emotion being expressed through the face, tone of voice, gestures, and posture. Although the content of the leader's feedback was identical across conditions, team members with an angry leader inferred that they had performed poorly, whereas those with a happy leader inferred that they had performed well.

Importantly, the informational functions of emotional expressions extend beyond the valence dimension. In a negotiation study involving four different negative emotions, participants who were confronted with a guilty or regretful opponent inferred that the other had claimed too much, which led them to increase their demands. Participants with a disappointed or worried opponent, in contrast, inferred that the other had received too little, which led them to lower their demands (Van Kleef, De Dreu, & Manstead, 2006; see also Van Kleef & Van Lange, 2008).

In short, emotional expressions can influence observers' behavior by eliciting affective reactions and/or by triggering inferential processes. These processes are distinct but mutually influential (Van Kleef, 2009). In some cases inferences and affective reactions lead to the same behavior. For example, the distress of a significant other signals that help is required (inference) but also triggers negative feelings in the observer (affective reaction), both of which foster supportive behavior (e.g., Clark et al., 1996). In other cases, however, inferences and affective reactions motivate opposite behaviors. For instance, when faced with an angry opponent in conflict, one's own reciprocal anger may drive competition and retaliation, but one's inference that the other is upset because his or her limits have been reached may encourage strategic cooperation (Van Kleef et al., 2004a). Which process takes precedence in guiding social behavior depends on two classes of moderators: information processing and social-contextual factors.
Building on the idea that emotional expressions provide information about the expresser, the EASI model posits that the interpersonal effects of emotional expressions depend on the observer's motivation and ability to process the information conveyed by these expressions. The deeper the information processing, the stronger the relative predictive power of inferences; the shallower the information processing, the stronger the relative predictive power of affective reactions (Van Kleef, 2009).

This idea is supported by several studies. In a series of negotiation experiments (Van Kleef et al., 2004b), participants conceded more to an angry counterpart than to a happy one when they had low need for cognitive closure, time pressure was low, or they had low power (circumstances that heighten information processing motivation), but not when they had high need for closure, time pressure was high, or they had high power (circumstances that lower information processing motivation). When participants were motivated to engage in thorough information processing they inferred from their counterpart's anger that s/he had ambitious limits and from happiness that s/he was lenient and easy to get (see also Sinaceur & Tiedens, 2006). When participants were not motivated to process information deeply they did not draw such inferences, and their behavior was unaffected by the counterpart's emotional expressions.

A similar moderating role of information processing was demonstrated in the study on leadership and team performance described earlier (Van Kleef et al., 2009). Followers with high dispositional information processing motivation (as measured prior to the interaction) performed better when their leader displayed anger rather than happiness, because in the case of anger they inferred that their performance was suboptimal and that they needed to work harder, whereas in the case of happiness they inferred that they had done a good job and that no further effort was needed. Followers with low information processing motivation, in contrast, performed better when the leader displayed happiness rather than anger, because the
leader's happiness put them in a good mood and made them like the leader, whereas the leader's anger annoyed them and made them dislike the leader.

Compatible findings were obtained in a study on creativity (Van Kleef, Anastasopoulou, & Nijstad, 2009). Participants played the role of generator of ideas, working with another participant in the role of evaluator. After the participant had generated ideas, a prerecorded video message from the evaluator (a trained actor) appeared on the participant's computer screen in which he provided feedback and tips in an angry or neutral way. Participants with high dispositional information processing motivation became more engaged in the task and generated more ideas after their colleague had expressed anger rather than no emotion. Participants with low information processing motivation, however, reported less task engagement and generated fewer ideas after their colleague had expressed anger.

Finally, a study on personal relationships found that individuals with a high sense of power were less motivated than those with a low sense of power to understand their conversation partner's emotions, and as a result they were less able to respond to the partner's suffering in an emotionally adaptive way (Van Kleef, Oveis, Van der Löwe, LuoKogan, Goetz, & Keltner, 2008). Power reduces the motivation to pay close attention to other people's feelings (Keltner, Van Kleef, Chen, & Kraus, 2008; Van Kleef et al., 2004b), and as such power undermines the relative predictive strength of inferential processes compared to affective reactions (cf. Van Kleef & Côté, 2007).

Social-Contextual Factors

The relative predictive power of inferences and affective reactions also depends on social-contextual factors (Van Kleef, 2009). One such factor concerns the interdependence structure of the situation. An extensive review of research on the interpersonal effects of emotions in cooperative and competitive settings (Van Kleef et al., in press) revealed that although affective reactions and inferential processes occur in both types of settings,
inferential processes are relatively more important in competitive situations, which are characterized by lower trust. In such situations, emotional expressions provide important strategic information that helps observers better understand their counterpart's intentions and determine an adaptive course of action.

Other important factors are those that influence the appropriateness of emotional expressions and their informational value. Examples are prevailing (cultural) norms (e.g., "display rules"), and the way the emotion is expressed (e.g., directed at the person vs. the situation). In one study, participants negotiated with a counterpart who expressed anger or no emotion in the presence versus absence of an explicit "display rule" that prohibited the use of intimidation tactics and negative emotions. Anger that was expressed in the absence of such a display rule was perceived as relatively appropriate and elicited cooperation, especially from low-power participants. In contrast, anger that was expressed in the presence of a display rule was perceived as inappropriate and elicited competition, especially from high-power participants (Van Kleef & Côté, 2007).

In another negotiation study, Steinel, Van Kleef, and Harinck (2008) compared the effects of emotions directed at the person versus at their behavior. As in previous studies (e.g., Sinaceur & Tiedens, 2006; Van Kleef et al., 2004a, 2004b), participants conceded more to angry opponents than to happy ones, but only when the emotion was directed at their behavior (e.g., "Your offer makes me really angry"). In this condition the informational value of the expression was relatively clear and concession behavior was mediated by inferences regarding the opponent's limits, which were perceived as higher in the case of anger than in the case of happiness. In another condition the anger was directed at participants personally (e.g., "You make me really angry"). In this case the information value of the emotions was much less clear, no effect on perceived limits was observed, and participants conceded less to angry as opposed to happy opponents.
In sum, the EASI model provides a social account of emotion by focusing on the interpersonal consequences of emotion expression, thus complementing existing models that focus on the *intrapersonal* effects of emotions on cognitions, judgments, and behavior (e.g., Forgas, 1995; Schwarz & Clore, 1983). Although several authors have stressed the social functions of emotions at the interpersonal level of analysis (e.g., Fischer & Manstead, 2008; Keltner & Haidt, 1999; Parkinson, 1996), until recently there was no unifying theory of the interpersonal effects of emotions. The EASI model fills this void by integrating and extending previous theorizing about the social functions of emotions. Specifically, the model specifies two processes through which discrete emotional expressions exert interpersonal influence (inferences vs. affective reactions), and it identifies two classes of moderators (information processing and social-contextual factors) that determine which of these processes best predicts behavior.

**Implications and Directions for Future Research**

The view of emotion as social information advocated here has several important theoretical implications. One implication concerns the (social) functions of emotions. Theorists differ in terms of the functionality they ascribe to emotions. Some argue that emotions are an evolutionary byproduct of the neural regulation of the autonomic nervous system (e.g., Porges, 1999). Others have proposed that emotions are functional in that they help us prioritize our goals, signal the importance of events to relevant concerns, and prepare our mind and body for adaptive responses to an ever-changing environment (e.g., Frijda, 1986; Levenson, 1999). I argue, in line with Keltner and Haidt (1999) and others, that an important complementary function is to regulate social interaction by providing information to interaction partners about our feelings, intentions, motives, and social goals.

This view implies that emotions may actually have evolved at least in part because of their social coordination function (cf. Darwin, 1872). As noted above, individuals often lack
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information about others' internal states, which makes it difficult to predict their behavior and determine an appropriate course of action. It stands to reason that this lack of insight in other individuals' goals and intentions was even more prevalent in preliterate times, when language as a communication device was not yet available. In the absence of language, observable nonverbal behaviors—including facial, vocal, and postural expressions of emotion—provided useful clues to other people's social intentions, making such expressions especially vital for adaptive responding, survival, and reproduction.

The view of emotions as social information also implies that emotional expressions should have a stronger impact on social behavior to the extent that other, more direct information about a person's social goals and intentions is unavailable. If emotions serve to disambiguate social interaction, providing trustworthy information about another person's intentions might undermine the impact of that person's emotional expressions. Likewise, emotional expressions may have less impact when strong social norms are in place to guide behavior. Such norms might take over emotion's disambiguating function by making other people's behavior more predictable. Future research could address these and related questions to shed more light on the social coordination function of emotions.

Another implication of the view of emotion as social information is that social interaction is shaped by individual differences in emotional expressivity and decoding accuracy. Some individuals are more emotionally expressive than others (Kring, Smith, & Neale, 1994), and it stands to reason that individuals who interact with emotionally expressive others are presented with more cues as to their interaction partner's inner states, goals, motives, and intentions. Observers, in turn, differ in the extent to which they are capable of accurately decoding others' emotional expressions (Salovey & Mayer, 1990). According to the EASI model's logic, individuals who are better at recognizing emotions in others should have more valuable information at their disposal to inform their behavior in interactions with
other people. These notions point to the importance of studying the social consequences of emotional expressivity and recognition.

A related implication is that emotion regulation should have pervasive effects on social interaction. Emotion regulation includes all efforts to increase, maintain, or decrease one or more components of an emotion, including its subjective experience and public display (Gross, 1998a, b). Theorists broadly distinguish between two forms of regulation (e.g., Grandey, 2003; Gross, 1998a, b; Hochschild, 1983): antecedent-focused regulation (also called deep acting) and response-focused regulation (also called surface acting). The former strategy occurs before an emotion is fully under way, and involves strategies such as reappraising the situation. The latter strategy occurs once an emotion is already experienced, and typically involves modification of the outward expression of the emotion. Although plenty of research speaks to the effects of different regulation strategies on the person's own subjective experience, physiology, and cognitive performance (e.g., Gross, 1998a; Richards & Gross, 2000), relatively little is known about the social consequences of emotion regulation (see Bell & Calkins, 2000; Côté, 2005).

If we accept that emotional expressions are important sources of information in social interaction, it follows that regulating one's emotional displays will have repercussions for social exchange. For instance, based on Gross' (1998b) process model of emotion regulation, strategies that act early in the emotion process can be expected to have different social consequences than strategies that act later in the process. Indeed, recent empirical work found that "deep acted" expressions of anger were more effective in inducing compliance in others than "surface acted" expressions of anger (Côté, Van Kleef, & Hideg, 2009). The reason is that deep acted anger was perceived as sincere, which led participants to use their counterpart's emotion as a credible source of information regarding his or her goals and
intentions. Surface acted anger, however, was perceived as insincere, which reduced the perceived trustworthiness of the counterpart's emotion.

Exploring how the differential regulation of discrete emotions affects social interaction seems a promising avenue for future research, for adequate emotion regulation may be a crucial predictor of socially competent behavior and successful social relations (Bell & Calkins, 2000). For instance, a recent study showed that emotional suppression predicted lower social support, less closeness to others, and lower social satisfaction (Srivastava, Tamir, McGonigal, John, & Gross, 2009). Following the logic of the EASI model, these effects may be due in part to the fact that perceivers can acquire less disambiguating information from a person who suppresses their emotional expressions. These and other hypotheses could be addressed in future research.

Another interesting issue concerns the role of culture. There is overwhelming evidence that culture shapes many aspects of the emotion process, including experience, expression, regulation, and recognition (e.g., Elfenbein & Ambady, 2002; Markus & Kitayama, 1991; Mesquita & Frijda, 1992). What is less clear at this point is how cultural differences influence the inferences individuals draw from others' emotional expressions. Recent work indicates that (cultural) display rules influence the perceived appropriateness of emotional expressions, which in turn influences the relative prevalence of affective reactions over inferential processes (Van Kleef & Côté, 2007). More research is needed to uncover how exactly culture shapes the content of the inferences individuals draw from other's emotional expressions.

A final issue concerns the generalizability of the EASI model to different social settings. Currently most direct support for the model as a whole comes from studies on conflict, negotiation, leadership, and team work, although studies on interpersonal relationships (e.g., Clark et al., 1996; Van Kleef et al., 2008) and parent-child interactions (e.g., Sorce et al., 1985) are also consistent with the model's predictions. One of the
challenges for future research will be to test the full model in different contexts. The view of emotions as social information spurs intriguing questions in adjacent fields, such as close relationships, sports psychology, developmental psychology, clinical psychology, and political psychology. For instance, what is the relationship between emotional expression and relationship success? Can sports coaches boost the performance of their teams by strategically expressing certain emotions? How do parents' emotional expressions influence their children's moral development? How should behavioral therapists regulate their emotions in order to create good rapport with their clients and also effectuate behavioral change? And how can political candidates best manage their emotions to garner support from the electorate? Exploring these and other questions will shed light on the purpose and functionality of emotion, why emotions have evolved, and how they regulate social life, thus bringing us closer to understanding emotion’s *raison d’être*. 
Short Biography

Gerben van Kleef's research focuses on human behavior and interaction in social and organizational settings. His primary interests revolve around emotion, power, conflict, and social influence. In studying these topics, he investigates fundamental social processes and explores their societal and organizational implications. He has published empirical and conceptual work in the fields of social psychology (e.g., *Journal of Personality and Social Psychology*, *Advances in Experimental Social Psychology*), applied psychology (e.g., *Academy of Management Journal*, *Journal of Applied Psychology*), and general psychology (e.g., *Psychological Science*, *Current Directions in Psychological Science*). He received several research grants and scientific awards and has served on the board of various international associations and journals. He holds Master's degrees in Social Psychology and Work and Organizational Psychology from the University of Amsterdam, the Netherlands, where he also earned his PhD. He held a visiting position at the University of California, Berkeley, before returning to the University of Amsterdam, where he is currently Associate Professor of Social Psychology.
References


Grandey, A. (2003). When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of*


theory, research, and experience: Vol 2. Emotions in early development (pp. 57-68).


Figure 1. The emotions as social information (EASI) model