UvA-DARE (Digital Academic Repository)

The social effects of emotions are functionally equivalent across expressive modalities

Van Kleef, G.A.

License
CC BY-NC-ND

[Link to publication]

Citation for published version (APA):

Routledge
Taylor & Francis Group

OPEN ACCESS   Check for updates

The Social Effects of Emotions are Functionally Equivalent Across Expressive Modalities

Gerben A. Van Kleef

Department of Social Psychology, University of Amsterdam, Amsterdam, the Netherlands

Introduction

Ever since the publication of Darwin's *The Expression of the Emotions in Man and Animals* in 1872, questions about the nature and purpose of emotional expressions have represented some of the most intriguing and enduring conundrums in the social and affective sciences. How do facial displays relate to emotional experience? What constitutes an emotional expression? What do emotional expressions signal? How do our emotional expressions influence others? Here I address the latter problem, focusing in particular on the question of how the social effects of emotions, that is, the effects of one person's emotional expressions on others, compare across different expressive modalities, including facial displays, vocal cues, bodily postures, language, and symbols such as emoticons.

Moving beyond the classic questions of what emotions are, how they arise, and what they represent, contemporary theorizing and research increasingly emphasize the social-communicative functions and effects of emotional expressions (e.g., Fischer & Manstead, 2016; Keltner & Haidt, 1999; Parkinson, 1996; Planalp, 1999; Van Kleef, Cheshin, Fischer, & Schneider, 2016). The latest contribution to this literature is the "pragmatic" approach advocated by Andrea Scarantino (this issue), which aims to illuminate the social-communicative properties of emotional expressions by drawing an analogy with formal language. This focus reflects the important insight that scientific understanding of the nature of emotional expressions requires thorough consideration of their social consequences.

In this commentary I compare the view of emotional expressions as communicative acts that is central to the theory of affective pragmatics (TAP; Scarantino, this issue) with the focus on the social consequences of emotional expressions that is advanced in Emotions as Social Information (EASI) theory (Van Kleef, 2009, 2016), another recent theoretical framework that emphasizes the social-communicative functions of emotions. In doing so, I focus mostly on one particular aspect in which the two perspectives seem to differ, namely, how social communication by means of nonverbal emotional expressions compares to communication through emotional language.

A Pragmatic Approach to the Social-Communicative Functions of Emotions

Scholars have long debated what (facial) emotional displays *represent*—involuntary reflections of inner feeling states, as suggested in the basic emotion view (e.g., Ekman, 1997), or deliberate communications of social motives, as proposed in the behavioral ecology view (e.g., Fridlund, 1994). Although this question is interesting from a theoretical point of view, it is less pertinent from a practical point of view. Indeed, from a pragmatic standpoint, understanding the social *consequences* of emotional expressions is more fruitful than quibbling about whether facial displays reflect felt emotions or social motives, especially because emotion and motivation are two sides of the same coin—emotions arise in response to events that matter in light of one's goals and concerns (Frijda, 1986; Lazarus, 1991), and therefore emotions, by their very nature, reflect underlying motivations (Buck, 1985; Parkinson, 2005). In that sense, the basic emotion perspective and the behavioral ecology perspective can be seen as compatible (Buck, 1994; Frijda, 1995; Hess, Banse, & Kappas, 1995; Horstmann, 2003); they merely emphasize different parts of the emotivational processes that put us in motion and that allow us to adaptively engage with our social environment.

Whether facial displays are, at the extremes, automatic and involuntary readouts of internal emotional states or deliberate communicative acts in the service of social motives, the critical insight to be taken away from both perspectives is that emotional expressions provide a window into what is going on in the expresser's mind—be it into their internally experienced emotions, their social motives, or some combination of the two (Van Kleef, 2016). Moreover, from a social-functional perspective, both types of communication—involuntary or deliberate—may be expected to exhibit considerable convergence in their social effects. For instance, a person who shows signs of distress may elicit empathic responses and consolation from others, regardless of whether the distress display reflects internally felt distress or a premeditated communicative strategy. (What does matter, according to EASI theory, is whether the emotional display is perceived as appropriate, an issue to which I return next.)

Scarantino (this issue) similarly highlights the commonalities between Ekman's (1997) analysis of the information

conveyed by emotional expressions and Fridlund's (1994) analysis of the declarations associated with nonverbal displays, which he argues call for an integration of the basic emotion view and the behavioral ecology view. Scarantino laid down his attempt at such integration in the form of his TAP, which he intends as a general framework for the study of what emotional expressions "do" from a communicative point of view.

Extrapolating insights from linguistic pragmatics (Austin, 1962; Searle, 1979) to affective science, Scarantino (this issue) draws a distinction among three aspects of emotional expression: the emotional expression itself (the act of expressing a particular emotion), communicative moves (what one does in expressing a particular emotion), and communicative effects (what one accomplishes by expressing a particular emotion). Scarantino rightfully points out that the scientific literature on emotional expression has so far mostly focused on the first aspect, largely neglecting the second and third aspects. These neglected aspects are covered by TAP and EASI, respectively: TAP speaks primarily to the second aspect (communicative moves), whereas EASI focuses primarily on the third aspect (communicative effects).

The core tenet of TAP is that "emotional expressions are a means not only of *expressing* what's inside, but also of *directing* other people's behavior, of *representing* what the world is like and of *committing* to future courses of action" (Scarantino, this issue, p. 165). Similar notions have been put forward by various other theorists, albeit using different terminology (e.g., Fischer & Manstead, 2016; Frijda & Mesquita, 1994; Keltner & Haidt, 1999; Manstead & Fischer, 2001; Parkinson, 1996; Planalp, 1999; Van Kleef, 2009). I appreciate Scarantino's emphasis on these communicative functions of emotions, which I believe are key to understanding the inherently social constitution of emotion. However, I contend that a focus on communicative moves alone is not enough to develop a complete understanding of the social nature of emotion. Such an understanding requires shifting the focus further from what emotional expressions *are* to what they *do*, because from a practical point of view communicative moves only matter to the degree that they are associated with communicative effects, that is, effects of one person's emotional expressions on other people. In other words, the focus on communicative moves that is advocated in TAP must be complemented with a focus on communicative effects as emphasized in EASI.

That caveat aside, through its focus on emotional expressions as communicative acts TAP makes a number of valuable contributions. First, building on preliminary work by Ekman (1997) on the informational content of emotional expressions, TAP offers a useful taxonomy of the "communicative moves" that emotional expressions may constitute, which include "expressives" (expressing the signaler's internal state), "directives" or "imperatives" (trying to get the recipient to do something), "assertives" or "declaratives" (representing how things are in the world), and "commissives" (committing the signaler to a future course of action). Second, TAP draws on the separate fields of linguistic pragmatics and affective science to enhance understanding of the similarities and differences between verbal and nonverbal communication. My interest here is with this second contribution.

Scarantino's (this issue) analysis of the similarities and differences between verbal and nonverbal emotional expressions contains several interesting elements. Contrary to the basic emotion view espoused by Ekman and colleagues, Scarantino argues that emotional expressions need not be involuntary. I agree. Emotional expressions may happen nonconsciously and involuntarily, but they can clearly also occur within the expresser's full awareness. I suggest that such conscious emotional expressions come in two critically distinct forms. One form consists of conscious emotional expressions that are true reflections of the person's internal emotional experience; the other form consists of conscious emotional expressions that are imperfect reflections of the person's inner state, either because the outward expression represents an amplification of the internal feeling (e.g., as a result of conscious upregulation of the expression), because it represents a deamplification of the internal feeling (e.g., as a result of conscious downregulation of the expression), or because it suggests an emotional state that is not actually experienced at all.

Scarantino (this issue) reasons that if we accept that emotional expressions can be voluntary, as I do, then there is no clear demarcation between facial, postural, and vocal expressions. He further states that "we could in principle also count verbal behaviors as emotional expressions," but goes on to reject this possibility on the basis that "for the purposes of Affective Pragmatics, an emotional expression must be nonverbal" (p. 176). He writes,

> To express an emotion in the speech act sense requires non-natural meaning and overt intentions, whereas to express an emotion though a communicative move requires only the deliverance of natural information about what emotion one is having. It follows that there are two ways of expressing emotions that differ in kind: by means of emotional expressions (stipulatively defined as nonverbal) and by means of speech acts. (p. 177)

Here I differ. Although I appreciate the differences between speech acts and nonverbal behaviors, I do not believe that verbal emotional expressions require or deserve a *status aparte* when it comes to understanding the social consequences of emotions. Whereas I accept the premise that speech-based expressions of emotion typically reflect intention, I reject the suggestion that nonverbal emotional expressions imply lack of intention. Nonverbal emotional expressions can be nonintentional, spontaneous, involuntary, and genuine (cf. Ekman, 1997), but they can also be intentional, premeditated, voluntary, and fake (cf. Fridlund, 1994). I contend that, from a pragmatic point of view, the key to deciding whether or not verbal and nonverbal emotional expressions are meaningfully different lies in comparing their social consequences.

Social Effects of Emotions Across Expressive Modalities

According to social-functional approaches, emotions play an important role in shaping people's responses to their social environments and in coordinating interactions between individuals (e.g., Fischer & Manstead, 2016; Frijda & Mesquita, 1994; Keltner & Haidt, 1999; Parkinson, 1996; Van Kleef, 2009). Such coordination may occur because people are influenced by their own emotional experiences (intrapersonal effects of emotions) and/or because people are influenced by the emotional expressions of others (interpersonal effects of

emotions). Within the context of the current argument, theory and research on the interpersonal effects of emotions are particularly relevant.

The interpersonal effects of emotions are modeled by EASI theory (Van Kleef, 2009, 2016). A foundational assumption of this theory is that social interactions are often ambiguous and that emotional expressions help to disambiguate social situations by providing information to observers about the expresser's thoughts, feelings, motives, and intentions. EASI theory postulates that emotional expressions shape behavior and regulate social life by eliciting *affective reactions* in observers (i.e., reciprocal and complementary emotions and sentiments about the expresser) and by triggering *inferential processes* in observers (i.e., inferences about the source, meaning, and implications of the expresser's emotion). How emotional expressions influence observers' behavioral responses depends on the relative prominence of affective reactions versus inferential processes. EASI posits that the relative prominence of inferential processes (compared to affective reactions) in predicting behavioral responses to other people's emotional expressions increases to the extent that the focal person is motivated and able to engage in thorough information processing and/or perceives the emotional expressions as appropriate; conversely, the relative predictive strength of affective reactions (compared to inferential processes) increases to the extent that the focal person's information processing is reduced and/or she or he perceives the emotional expression as inappropriate.

If one accepts the notion that emotional expressions can influence social interactions by providing information about what is on the expresser's mind, it follows that emotions can have such effects regardless of how they are expressed, as long as the expressions convey the relevant information. Consequently, EASI theory posits that expressions of the same emotion that are emitted via different expressive modalities (i.e., in the face, through the voice, by means of bodily postures, with words, or via symbols such as emoticons) have comparable effects, provided that the emotional expressions can be perceived by others (Van Kleef, Van Doorn, Heerdink, & Koning, 2011). The suitability of the various expressive channels within a given interaction context depends on situational affordances that influence the effectiveness of various types of verbal and nonverbal communication. For instance, facial expressions would generally be more effective in face-to-face interaction, vocal expressions would be more effective in phone conversations, and verbal expressions would be more effective in e-mail exchanges. Such obvious boundary conditions aside, EASI theory postulates that the social-signaling value of emotions is functionally equivalent across expressive modalities in that the direction (but not necessarily the magnitude) of the interpersonal effects of emotional expressions is the same irrespective of the expressive channel through which they are emitted, as long as the emotional expression is accurately perceived. This is referred to as the *functional equivalence hypothesis* in the EASI framework.

It is possible to gauge the empirical support for the functional equivalence hypothesis by virtue of the fact that research on the social effects of emotions has employed a variety of procedures to operationalize emotional expressions across a wide range of social situations (e.g., close relationships, group

decision making, conflict and negotiation, customer service, leadership). Some studies relied on verbal expressions of emotion, which were often delivered in the context of (simulated) computer-mediated interactions (e.g., Adam, Shirako, & Maddux, 2010; Bono & Ilies, 2006; Friedman et al., 2004; Melwani & Barsade, 2011; Van Kleef, De Dreu, & Manstead, 2004a, 2004b). Other studies used still pictures of facial emotional expressions (e.g., Hess, Blairy, & Kleck, 2000; Pietroni, Van Kleef, De Dreu, & Pagliaro, 2008; Van Doorn, Heerdink, & Van Kleef, 2012) or dynamic film clips containing emotional expressions in face, voice, and posture (e.g., Lewis, 2000; Van Kleef et al., 2009). Still other studies utilized face-to-face paradigms, in which confederates were trained or naïve participants were instructed to emit certain emotional expressions in interaction with another person (e.g., Barsade, 2002; Sinaceur & Tiedens, 2006; Sy, Côté, & Saavedra, 2005; Wang, Northcraft, & Van Kleef, 2012). Yet other research (often conducted in the field) involved self-reports of emotions and/or perceptions or coding of emotional expressions as they arose in the context of ongoing social interactions (Anderson, Keltner, & John, 2003; Averill, 1982; Grandey, 2003; Pugh, 2001; Tsai, 2001). Finally, some published reports contain a combination of studies that involved written emotion messages, emoticons, pictures of facial displays, film clips containing facial, vocal, and postural expressions, and/or emotional expressions shown in face-to-face interaction (e.g., Bono & Ilies, 2006; Heerdink, Van Kleef, Homan, & Fischer, 2013; Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2013; Sinaceur & Tiedens, 2006; Tiedens, 2001; Van Kleef, Van den Berg, & Heerdink, 2015).

A recent comprehensive review of empirical research on the social effects of emotions revealed that emotional expressions have very similar social effects regardless of whether they are emitted through the face, in the voice, via bodily postures, in words, or by means of symbols such as emoticons (Van Kleef, 2016). Specifically, the review provided support for the notion put forward in EASI theory that emotional expressions across expressive channels influence observers' affective, inferential, and behavioral responses. With regard to affective responses, one robust finding across numerous studies is that expressions of happiness engender positive affective reactions in observers, such as reciprocal feelings of happiness, positive affect, and/or positive impressions of the expresser (e.g., Barsade, 2002; Sy et al., 2005; Van Kleef et al., 2004a; Van Kleef et al., 2009), whereas expressions of anger engender negative affective responses, such as reciprocal feelings of anger, negative affect, and/or negative impressions of the expresser (e.g., Barsade, 2002; Friedman et al., 2004; Kopelman, Rosette, & Thompson, 2006; Lewis, 2000; Sy et al., 2005; Van Kleef et al., 2004a; Van Kleef et al., 2009). Important to note, these effects occurred across different expressive modalities, and no systematic effects of expressive modality were observed.

With regard to inferential processes, numerous studies have shown that observers distill relevant context-dependent information from interaction partners' emotional displays that helps them make sense of the situation and determine a fitting course of action. For instance, several studies have demonstrated that negotiators infer from their counterpart's expressions of anger that the counterpart is tough and ambitious (Adam & Brett, 2015; Sinaceur & Tiedens, 2006; Van Dijk, Van Kleef, Steinel,

& Van Beest, 2008; Van Kleef et al., 2004a), whereas they infer from expressions of happiness that the counterpart is lenient and easily satisfied (Van Dijk et al., 2008; Van Kleef et al., 2004a). Other work provided evidence that deviant group members infer from their fellow group members' expressions of anger versus happiness that their fellow group members reject versus accept them, respectively (Heerdink et al., 2013, Heerdink, Van Kleef, Homan, & Fischer, 2015). Finally, research has shown that followers infer from their leader's expressions of anger versus happiness that their performance is unsatisfactory versus satisfactory, respectively (Van Kleef et al., 2009). Again, these effects were observed across studies that focused on different expressive modalities, and no systematic effects of expressive modality emerged.

With regard to the "tangible" social consequences of emotional expressions, research supports the notion advanced in EASI theory that behavioral responses to emotional expressions depend on the relative prominence of affective and inferential processes triggered by the emotional expression. The relative predictive value of affective and inferential processes in shaping behavioral responses to emotional expressions is in turn shaped by the observer's information-processing motivation and ability and by the perceived appropriateness of the emotional display. In keeping with this idea, studies on the social effects of emotional expressions in negotiation, group decision making, leadership, and persuasion indicate that inferential responses to emotional expressions take on heightened importance in predicting behavioral responses to emotional expressions to the degree that observers are more motivated and able to engage in thorough information processing (e.g., Heerdink et al., 2013; Sinaceur & Tiedens, 2006; Van Kleef et al., 2004b; Van Kleef et al., 2009; Van Kleef et al., 2015), and these effects generalize across expressive channels (e.g., Heerdink et al., 2013; Van Kleef et al., 2015). Other studies indicate that affective responses to emotional expressions become more predictive of behavioral responses in negotiation and leadership settings to the degree that observers are less motivated or able to engage in thorough information processing and/or perceive the emotional expressions as more inappropriate (e.g., Adam et al., 2010; Van Kleef & Côté, 2007; Van Kleef, Homan, Beersma, & Van Knippenberg, 2010).

As a result of such shifts in the relative prominence of affective and inferential processes, negotiators are more likely to make concessions when their counterparts express anger to the degree that they are motivated and able to consider the meaning and implications of the counterpart's anger and deem the anger relatively appropriate, whereas they are more likely to retaliate by adopting a competitive stance to the degree that they are unmotivated or unable to consider the meaning and implications of the counterpart's anger and/or perceive the anger as inappropriate (e.g., Van Kleef & Côté, 2007). Similarly, followers are more likely to increase their effort and performance in response to a leader's expressions of anger to the degree that they are motivated to engage in thorough information processing and perceive the anger as appropriate, whereas they are more likely to reduce their efforts and show drops in performance to the degree that they are unmotivated to engage in thorough information processing or perceive the leader's anger as inappropriate (e.g., Van Kleef et al., 2010; Van Kleef

et al., 2009). The current literature provides no indications that information processing or perceived appropriateness differ depending on the expressive channel through which an emotion is communicated.

In short, there is no evidence of differential effects of emotions expressed through different expressive modalities. When it comes to their interpersonal effects, it appears that different channels of emotional communication are functionally equivalent, at least as far as the direction of their effects is concerned. This is not to say that emotional expressions always have the same effects across situations. However, differential responses to emotional expressions across social situations are better understood in terms of the relative prominence of affective and inferential processes triggered by the expressions than by the expressive channel through which the emotion is emitted. The key to understanding the social effects of emotional expressions, then, lies not in comparing their effects across expressive modalities but rather in considering the moderating role of information processing and perceived appropriateness.

Conclusion and Implications

There is a growing awareness in the social and affective sciences that emotional expressions play a pivotal role in coordinating social interaction. It takes only brief introspection or cursory observation of daily social interactions to realize that such coordination can be informed by facial displays (e.g., a frown or a smile), vocal expressions (e.g., a grunt or a hum), bodily postures (e.g., clenched fists or hanging shoulders), written communications or utterances (e.g., an angry remark or an expression of gratitude), or use of emotion symbols (e.g., a "smiley" or a "frowny"). Surprisingly, however, most research on the communicative nature of emotional expressions has focused on facial displays of emotion. This focus has gone at the expense of attention paid to the informational and communicative functions of vocal, postural, verbal, and symbolic emotional expressions (but see, e.g., Aviezer, Trope, & Todorov, 2012; Byron, 2008; Coyne, 1976; Sauter, Eisner, Ekman, & Scott, 2010; Scherer, 1986; Van Kleef et al., 2004a; Wallbott, 1998). It is clear that facial expressions of emotion play a prominent role in regulating social interaction, but there is no reason to assume that they are unique in serving this function. On the contrary, if we accept the assumption that emotional expressions have evolved in part because of their communicative functionality (e.g., Scarantino, this issue; Van Kleef, 2016), it stands to reason that the social-signaling value of emotional expressions is similar across expressive modalities.

Consistent with this position, Scarantino (this issue) argues that "from a communicative point of view, much of what we can do with language we can also do with non-verbal emotional expressions" (p. 165) and that "what one can communicate via speech acts … closely resembles in terms of forces what one can communicate via emotional expressions" (p. 182). At the same time, however, Scarantino reserves a unique status for verbal emotional expressions, arguing that "there are key differences between the non-natural meaning of linguistic utterances and the natural meaning of emotional expressions" (p. 183). In one sense, then, TAP provides a means of integrating literatures on emotion and linguistics by pointing to the interchangeability

of language and emotional expression, but in another sense it creates a boundary between these literatures by suggesting that verbal and nonverbal emotional expressions are fundamentally different.

The key to understanding this paradox, I believe, lies in whether one focuses on communicative moves or communicative effects. Even though Scarantino (this issue) briefly touches on the notion of communicative effects, the primary focus of his theory appears to be on emotional expressions as communicative moves. In contrast, the primary focus of EASI theory (Van Kleef, 2009, 2016) is on the communicative effects of emotional expressions. Together, the two theories capture the two aspects of emotional expression that Scarantino identified as requiring greater attention from the scientific community. In that sense, the two theories can be seen as serving two complementary purposes.

I have argued here that from the point of view of understanding the social-communicative functions and consequences of emotional expressions, the distinction between verbal and nonverbal expressive channels is inconsequential. Drawing on EASI theory's functional equivalence hypothesis, I have argued that emotional expressions serve similar purposes and have similar effects regardless of the expressive channel through which they are communicated. I have reviewed research showing that emotional expressions influence observers' behavior by eliciting affective and/or inferential processes in them and that these processes are unaffected by expressive modality. The relative predictive value of affective and inferential processes in shaping behavioral responses to emotional expressions depends on observers' information-processing motivation and ability and on the perceived appropriateness of the emotional expression, both of which are largely independent of expressive modality. In short, the social-communicative effects of emotional expressions appear to be functionally equivalent across expressive channels, including verbal and nonverbal communication.

If one accepts the possibility of such functional equivalence of expressive channels, several implications are worth considering. First, the notion of functional equivalence implies that the social-signaling function of emotions is served equally well by emotional expressions across expressive modalities, whether nonverbal or nonverbal, provided that the emotional expression can be accurately registered. Thus, for instance, a distant cry of distress, a teary face at close range, and an e-mail stating that one's sorrow may all be effective in eliciting social support by triggering affective reactions and/or inferential processes in an observer, even though the strength of the effects might differ across expressive channels (Hawk, Van Kleef, Fischer, & Van der Schalk, 2009). That said, some types of expressions may be more effective depending on situational affordances and constraints, and smooth social interactions require flexible use of emotional expressions that are most likely to be effective under the given circumstances.

Second, the notion of functional equivalence has implications for designing studies on the social effects of emotions. Some scholars maintain that nonverbal manipulations of emotional expression more accurately capture the essence of emotion than do verbal manipulations. The growing evidence for the functional equivalence of different manipulations of emotional expressions casts doubt on the tenability of this position. In addition, now that communication increasingly occurs via social media that rely primarily on verbal communication, verbal expressions of emotion become ever more prevalent in social interaction. Disregarding them as unnatural does not do justice to the ways in which emotions are expressed in everyday life.

In conclusion, there is no compelling theoretical or empirical basis in the literature to support the position that verbal and nonverbal emotional expressions have meaningfully different social consequences. If one accepts that emotional expressions shape social interactions by providing information about what is going on in the expresser's mind, a logical consequence is that emotional expressions can have such effects regardless of the expressive channel through which they are emitted. Indeed, empirical evidence indicates that emotional expressions generally have similar social consequences regardless of whether they are conveyed via facial displays, vocal cues, bodily postures, language, or symbols such as emoticons. From a pragmatic point of view, then, the social effects of emotions are functionally equivalent across expressive modalities.

References

Adam, H., & Brett, J. M. (2015). Context matters: The social effects of anger in cooperative, balanced, and competitive negotiation situations. *Journal of Experimental Social Psychology*, *61*, 44–58.

Adam, H., Shirako, A., & Maddux, W. W. (2010). Cultural variance in the interpersonal effects of anger in negotiations. *Psychological Science*, *21*, 882–889.

Anderson, C., Keltner, D., & John, O. P. (2003). Emotional convergence between people over time. *Journal of Personality and Social Psychology*, *84*, 1054–1068.

Austin, J. L. (1962). *How to do things with words*. Cambridge, MA: Harvard University Press.

Averill, J. R. (1982). *Anger and aggression*. New York, NY: Springer.

Aviezer, H., Trope, Y., & Todorov, A. (2012). Body cues, not facial expressions, discriminate between intense positive and negative emotions. *Science*, *338*, 1225–1229.

Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, *47*, 644–675.

Bono, J. E., & Ilies, R. (2006). Charisma, positive emotions, and mood contagion. *The Leadership Quarterly*, *17*, 317–334.

Buck, R. (1985). Prime theory: An integrated view of motivation and emotion. *Psychological Review*, *92*, 389–413.

Buck, R. (1994). Social and emotional functions in facial expression and communication: The readout hypothesis. *Biological Psychology*, *38*, 95–115.

Byron, K. (2008). Carrying too heavy a load? The communication and miscommunication of emotion by email. *Academy of Management Review*, *33*, 309–327.

Coyne, J. C. (1976). Depression and the response of others. *Journal of Abnormal Psychology*, *85*, 186–193.

Darwin, C. (1872). *The expression of the emotions in man and animals* (3rd ed.). London, UK: Harper Collins.

Ekman, P. (1997). Expression or communication about emotion. In N. L. Segal, G. E. Weisfeld, & C. C. Weisfeld (Eds.), *Uniting biology and psychology: Integrated perspectives on human development* (pp. 315–338). Washington, DC: APA Press.

Fischer, A. H., & Manstead, A. S. R. (2016). Social functions of emotion and emotion regulation. In M. Lewis, J. Haviland, & L. Feldman Barrett (Eds.), *Handbook of emotion* (4th ed., pp. 456–469). New York, NY: Guilford.

Fridlund, A. J. (1994). *Human facial expression: An evolutionary view*. San Diego, CA: Academic Press.

Friedman, R., Anderson, C., Brett, J., Olekalns, M., Goates, N., & Lisco, C. C. (2004). The positive and negative effects of anger on dispute resolution: Evidence from electronically mediated disputes. *Journal of Applied Psychology*, 89, 369–376.

Frijda, N. H. (1986). *The emotions*. Cambridge, UK: Cambridge University Press.

Frijda, N. H. (1995). Expression, emotion, neither, or both? *Cognition & Emotion*, 9, 617–635.

Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama, & H. S. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51–87). Washington, DC: American Psychological Association.

Grandey, A. (2003). When "the show must go on": Surface and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal*, 46, 86–96.

Hawk, S. T., Van Kleef, G. A., Fischer, A. H., & Van der Schalk, J. (2009). Worth a thousand words: Absolute and relative decodability of nonlinguistic affect vocalizations. *Emotion*, 9, 293–305.

Heerdink, M. W., Van Kleef, G. A., Homan, A. C., & Fischer, A. H. (2013). On the social influence of emotions in groups: Interpersonal effects of anger and happiness on conformity versus deviance. *Journal of Personality and Social Psychology*, 105, 262–284.

Heerdink, M. W., Van Kleef, G. A., Homan, A. C., & Fischer, A. H. (2015). Emotional expressions as cues of rejection and acceptance: Evidence from the affect misattribution paradigm. *Journal of Experimental Social Psychology*, 56, 60–68.

Hess, U., Banse, R., & Kappas, A. (1995). The intensity of facial expression is determined by underlying affective state and social situation. *Journal of Personality and Social Psychology*, 69, 280–288.

Hess, U., Blairy, S., & Kleck, R. E. (2000). The influence of facial emotion displays, gender, and ethnicity on judgments of dominance and affiliation. *Journal of Nonverbal Behavior*, 24, 265–283.

Horstmann, G. (2003). What do facial expressions convey: Feeling states, behavioral intentions, or actions requests? *Emotion*, 3, 150–166.

Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition & Emotion*, 13, 505–521.

Kopelman, S., Rosette, A. S., & Thompson, L. (2006). The three faces of Eve: An examination of the strategic display of positive, negative, and neutral emotions in negotiations. *Organizational Behavior and Human Decision Processes*, 99, 81–101.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.

Lelieveld, G. J., Van Dijk, E., Van Beest, I., & Van Kleef, G. A. (2013). Does communicating disappointment in negotiations help or hurt? Solving an apparent inconsistency in the social-functional approach to emotions. *Journal of Personality and Social Psychology*, 105, 605–620.

Lewis, K. M. (2000). When leaders display emotion: How followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior*, 21, 221–234.

Manstead, A. S. R., & Fischer, A. H. (2001). Social appraisal: The social world as object of and influence on appraisal processes. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, research, application* (pp. 221–232). New York, NY: Oxford University Press.

Melwani, S., & Barsade, S. G. (2011). Held in contempt: The psychological, interpersonal, and performance consequences of contempt in a work context. *Journal of Personality and Social Psychology*, 101, 503–520.

Parkinson, B. (1996). Emotions are social. *British Journal of Psychology*, 87, 663–683.

Parkinson, B. (2005). Do facial movements express emotions or communicate motives? *Personality and Social Psychology Review*, 9, 278–311.

Pietroni, D., Van Kleef, G. A., De Dreu, C. K. W., & Pagliaro, S. (2008). Emotions as strategic information: Effects of other's emotions on fixed-pie perception, demands and integrative behavior in negotiation. *Journal of Experimental Social Psychology*, 44, 1444–1454.

Planalp, S. (1999). *Communicating emotion: Social, moral, and cultural processes*. Cambridge, UK: Cambridge University Press.

Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal*, 44, 1018–1027.

Sauter, D. A., Eisner, F., Ekman, P., & Scott, S. K. (2010). Cross-cultural recognition of basic emotions through nonverbal emotional vocalizations. *Proceedings of the National Academy of Sciences of the United States of America*, 107, 2408–2412.

Scherer, K. R. (1986). Vocal affect expression: A review and model for future research. *Psychological Bulletin*, 99, 143–165.

Searle, J. R. (1979). *Expression and meaning*. Cambridge, UK: Cambridge University Press.

Sinaceur, M., & Tiedens, L. Z. (2006). Get mad and get more than even: When and why anger expression is effective in negotiations. *Journal of Experimental Social Psychology*, 42, 314–322.

Sy, T., Côté, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology*, 90, 295–305.

Tiedens, L. Z. (2001). Anger and advancement versus sadness and subjugation: The effect of negative emotion expressions on social status conferral. *Journal of Personality and Social Psychology*, 80, 86–94.

Tsai, W. C. (2001). Determinants and consequences of employee displayed positive emotions. *Journal of Management*, 27, 497–512.

Van Dijk, E., Van Kleef, G. A., Steinel, W., & Van Beest, I. (2008). A social functional approach to emotions in bargaining: When communicating anger pays and when it backfires. *Journal of Personality and Social Psychology*, 94, 600–614.

Van Doorn, E. A., Heerdink, M. W., & Van Kleef, G. A. (2012). Emotion and the construal of social situations: Inferences of cooperation versus competition from expressions of anger, happiness, and disappointment. *Cognition & Emotion*, 12, 442–461.

Van Kleef, G. A. (2009). How emotions regulate social life: The emotions as social information (EASI) model. *Current Directions in Psychological Science*, 18, 184–188.

Van Kleef, G. A. (2016). *The interpersonal dynamics of emotion: Toward an integrative theory of emotions as social information*. Cambridge, UK: Cambridge University Press.

Van Kleef, G. A., Cheshin, A., Fischer, A. H., & Schneider, I. K. (2016). Editorial: The social nature of emotions. *Frontiers in Psychology*, 7 (896), 1–5.

Van Kleef, G. A., & Côté, S. (2007). Expressing anger in conflict: When it helps and when it hurts. *Journal of Applied Psychology*, 92, 1557–1569.

Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004a). The interpersonal effects of anger and happiness in negotiations. *Journal of Personality and Social Psychology*, 86, 57–76.

Van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004b). The interpersonal effects of emotions in negotiations: A motivated information processing approach. *Journal of Personality and Social Psychology*, 87, 510–528.

Van Kleef, G. A., Homan, A. C., Beersma, B., & Van Knippenberg, D. (2010). On angry leaders and agreeable followers: How leaders' emotions and followers' personalities shape motivation and team performance. *Psychological Science*, 21, 1827–1834.

Van Kleef, G. A., Homan, A. C., Beersma, B., Van Knippenberg, D., Van Knippenberg, B., & Damen, F. (2009). Searing sentiment or cold calculation? The effects of leader emotional displays on team performance depend on follower epistemic motivation. *Academy of Management Journal*, 52, 562–580.

Van Kleef, G. A., Van den Berg, H., & Heerdink, M. W. (2015). The persuasive power of emotions: Effects of emotional expressions on attitude formation and change. *Journal of Applied Psychology*, 100, 1124–1142.

Van Kleef, G. A., Van Doorn, E. A., Heerdink, M. W., & Koning, L. F. (2011). Emotion is for influence. *European Review of Social Psychology*, 22, 114–163.

Wallbott, H. G. (1998). Bodily expression of emotion. *European Journal of Social Psychology*, 28, 879–896.

Wang, L., Northcraft, G., & Van Kleef, G. A. (2012). Beyond negotiated outcomes: The hidden costs of anger expression in dyadic negotiation. *Organizational Behavior and Human Decision Processes*, 119, 54–63.