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CHAPTER 23

Emotions in the Wild

The Situated Perspective on Emotion

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1. Introduction

Many theoretical traditions have contributed to the scientific elucidation of emotion, but philosophers facing the question, What is an emotion? have concentrated on two of these in particular.[1] Philosophical cognitivism is inspired by the appraisal tradition in psychology (e.g., Arnold, 1960, 1970; Scherer, 1999). The alternative neo-Jamesian approach is inspired by the somatic marker hypothesis in affective neuroscience (Damasio, 1996; Panksepp, 1998). Cognitivists identify emotions with representations of the stimulus situation, or evaluative judgments (Solomon, 1976, 1993). Neo-Jamesians identify emotions with states of bodily arousal, which are detected by the brain as affect (Prinz, 2004b). Both these views of emotion parallel the view of cognition that has been called into question by situated cognition research (Cantwell-Smith, 1999; Clark, 1997). In both theories, emotions are conceived as internal states or processes and the role of the environment is confined to providing stimuli and receiving actions. Thus, although Prinz advocates embodied emotions (Prinz, 2004a), his contribution does not emphasize the role of the environment, assimilating emoting to perceiving actual or as-if changes of one's own body (Damasio, 1999). In a further parallel with traditional views of cognition, both cognitivists and neo-Jamesians focus on the contributions that emotions make to the organism's internal, psychological economy. The primary function of emotions, on both accounts, is to provide the organism's decision-making systems with information about the significance of a stimulus situation.

This chapter describes a very different perspective on emotion, according to which emotions are the following:

1. Designed to function in a social context: an emotion is often an act of relationship reconfiguration brought about by delivering a social signal.
2. Forms of skillful engagement with the world that need not be mediated by conceptual thought
3. Scaffolded by the environment, both synchronically in the unfolding of a particular emotional performance and

diachronically, in the acquisition of an emotional repertoire

4. Dynamically coupled to an environment that both influences and is influenced by the unfolding of the emotion

We draw heavily on transactional accounts of emotion proposed by some contemporary psychologists (Fridlund, 1994; Parkinson, 1995; Parkinson, Fischer, & Manstead, 2005; Russell & Fernández-Dols, 1997). Although these authors do not, to our knowledge, conceive of their work as a contribution to the situationist literature that is the focus of this volume, we contend that their proposals constitute a fairly exact, affective parallel to situationist ideas about cognition. The primary aim of this chapter is to demonstrate that a situated approach to emotion already exists and is backed by a substantial experimental literature. This body of theory and data could make a major contribution to fleshing out the general situationist perspective on the mind.

We emphasize that adopting the situationist perspective does not require denying the results produced by other theoretical traditions in psychology, such as the affect-program tradition or even the heuristic value of alternative theoretical perspectives. Instead, the situated perspective shifts our theoretical focus to neglected phenomena and questions. The situated approach to emotion is at its most compelling when applied to exemplars like anger in a marital quarrel or embarrassment while delivering a song to an audience. These are cases in which the emotion has a temporal course of development and involves an ongoing exchange of emotional signals (e.g., facial actions, tones of voice). This switch in the focus of emotion theory parallels the way in which situated cognition research switches the focus of cognitive science from exemplars like theorem proving to engaged, real-time exemplars like navigation in a cluttered environment.

Finally, the situated perspective on emotion has some points in common with active-vision accounts of situated perception (Noë, 2004. In traditional models of emotional appraisal, the organism receives information from the environment and uses it to determine the emotional significance of the situation that confronts it. In contrast, the situated perspective envisages organisms probing their environment through initial emotional responses and monitoring the responses of other organisms to determine how the emotion will evolve (see section 5).

2. Social Situatedness

A situated perspective on the mind recognizes that it is designed to function in an environmental context and that aspects of the environment may be causal components of mental mechanisms (Clark & Chalmers, 1998). Research on situated cognition has often emphasized the reliable physical properties of the environment, properties that can be exploited to reduce cognitive load. In contrast, a situated perspective on emotion emphasizes the role of social context in the production and management of an emotion, and the reciprocal influence of emotion on the evolving social context. Behaviors that have traditionally been viewed as involuntary expressions of the organism's psychological state are instead viewed as signals designed to influence the behavior of other organisms, or as strategic moves in an ongoing transaction between organisms.[2]

One of the most important experimental paradigms for a situated perspective on emotion is the study of audience effects – differences in emotional response to a constant stimulus which reflect differences in the expected recipient(s) of the emotion. Among the most dramatic effects are those obtained for the production of the so-called Duchenne smile – the pattern of movement of mouth and eyes generally accepted as a pancultural expression of happiness (Ekman, 1972). Ten-pin bowlers are presumably happiest when they make a full strike and less happy when they knock down a few pins. However, bowlers rarely smile after making a full strike when facing away from their bowling companions and smile very often after knocking down a few pins

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when they face their companions (Kraut & Johnston, 1979). Spanish soccer fans show a similar pattern in their facial response to goals and issue Duchenne smiles only when facing one another (Fernández-Dols & Ruiz-Belda, 1997). Fernández-Dols and Ruiz-Belda also demonstrate that at the 1992 Barcelona Olympics, although gold medalists produced many signs of emotion during the medal ceremony, they produced Duchenne smiles almost exclusively when interacting with the audience and officials.

These results suggest that smiles are not outpourings of happiness that are merely witnessed by other people but affiliative gestures made by one person to another with respect to something good that has occurred. This fits the model of emotions as strategic moves in the context of a social transaction. Obviously, people do smile and produce other classical emotional expressions when they are alone, but studies suggest that they do so far less often than one might expect. Even such apparently reflexive displays as facial expressions produced in response to tastes and smells appear to be facilitated by an appropriate social setting and the same appears to be the case for pain expressions (Russell, Bachorowski, & Fernández-Dols, 2003). Furthermore, it would be a mistake to conclude that audience effects are absent when a physical audience is absent. Solitary subjects who mentally picture taking part in a social interaction produce more emotional facial signals than subjects who focus on the emotional stimulus without an imagined audience. Fridlund (1994; Fridlund et al., 1990) has described this as implicit sociality and remarked that his experimental subjects display to the audience in their heads.

The sensitivity to social context manifested in audience effects can be implemented by very simple mental mechanisms, as is evident from the prevalence of audience effects in animals. This is important because it helps to explain how the emotions can be produced strategically without becoming mere pretences of emotion (see also Griffiths, 1997, chap. 6; 2004b). Male Golden Sebright chickens, for example, make a fuss when they find and consume a valuable morsel of food, but only if there are female chickens in the vicinity (Marler & Evans, 1997). There is, presumably, no point in demonstrating foraging ability to other males! Results like these suggest that the social situatedness of emotion is not a special human achievement mediated by conceptual thought but a fundamental aspect of emotion (see section 3).

Socially situated emotions have a strategic aspect neglected in cognitivist and neo-Jamesian accounts of emotion. Emotions have been seen as more or less accurate responses to how things are, but they are also, and perhaps primarily, more or less effective goal-oriented responses. For example, one study in which people were asked to describe situations in which they had become angry found that the prospect of obtaining compensation is a significant factor determining whether a loss elicits anger or sadness (Stein, Trabasso, & Liwag, 1993). This is puzzling if anger is merely a response to having been wronged, but makes good sense if anger is a strategy to obtain restitution.

Embarrassment is an emotion that wears its social situatedness on its face, as most theories of embarrassment acknowledge (Parkinson et al., 2005, pp. 188–192). The finding that observers evaluate people who behave in a socially inappropriate manner more highly if they show embarrassment suggests that one function of embarrassment may be to indicate knowledge of a violated norm and acceptance of its validity (for more on embarrassment elicitors, see section 3). In a study in which subjects were asked to record a karaoke-style performance of a notoriously embarrassing love song, the singer's subsequent level of embarrassment was reduced if he or she was given reason to believe that the experimenter knew the subject was embarrassed by the performance (Leary, Landel, & Patton, 1996). The authors take this result to suggest that embarrassment functioned as a signal: the singer needed to convey to the audience that they had a low opinion of the song, thus confirming the singer's knowledge of, and desire to conform to, community standards.

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Some emotional behavior simply cries out for a transactional analysis. Sulking is normally thought of as a manifestation of emotion, but traditional theories of emotion do little to illuminate it. This is perhaps why there has been so little research on a phenomenon of such obvious importance to human relationship dynamics. Sulking sabotages mutually rewarding social transactions and rejects attempts at reconciliation. Traditional appraisal theory can identify sulking as a manifestation of anger, but does nothing to explain the specifics of sulking, which must be handed off to a separate theory of emotion management or emotion coping. It is also implausible that all (or even most) people who sulk sincerely judge themselves to have been wronged, so an ancillary theory of self-deceit is needed as well. In contrast, viewing an emotion as a strategy of relationship reconfiguration (Parkinson, 1995, p. 295) provides a compelling perspective of sulking. Sulking is a behavioral strategy for seeking a better deal in a relationship – an emotional game of chicken in which transactions that benefit both parties are rejected until appropriate concessions are obtained. The question confronting an agent deciding whether to become upset in this way is not whether they have been slighted simpliciter, but whether taking what has happened as a slight and withdrawing cooperation will give them leverage. Once again, this strategic appraisal of the situation may be realized by a relatively simple mental mechanism.

The situated perspective on emotion can be seen as an attempt to refocus discussion on a new set of examples. Rather than taking the meeting between a man and a bear in a lonely wood as a paradigm of fear, attention is focused on displays of fear produced by a child when her caregiver is at hand. Rather than taking righteous anger at the injustices of the world to be the paradigm of anger, anger is studied in the context of its development in a marital confrontation. The aim of this refocusing is twofold: first, to illuminate the aspects of emotional life that are arguably most relevant to practical issues of emotion management; second, to reveal the social aspects of many other emotions that are overlooked when they are assimilated to the traditional exemplar cases.

3. Nonconceptual Emotional Content

Most situationist literature opposes the idea that the primary medium of cognition is conceptual thought. Although not denying that conceptual thought exists, situationists see it as only the icing on the cognitive cake. Other forms of cognition explain most of the practical abilities of organisms to negotiate their environments (Cantwell-Smith, 1999; Cussins, 1992). In this section we explore a similar perspective on emotional content.

To be credited with conceptual thought, a creature must fulfill requirements of maximal inferential promiscuity with respect to its thought contents (Hurley, 2003). A popular way to state this requirement is Evans's (1982) generality constraint, according to which a mental state qualifies as a "thought that a is F" just in case it is possible for the subject to decompose that state into recombinable ingredients and form with such ingredients mental states of two sorts: states that predicate of "a" any property G the subject can conceive of, and states that predicate F of any object "b" the subject can conceive of. The ability to entertain the thought "a is F" is therefore "a joint exercise of two abilities" (Evans, 1982, p. 104); namely, the ability to have the concept of a particular object "a" and the ability to have the concept of a particular property F. These abilities underlie the higher-order ability to think productively and systematically, sensu Fodor (1975 and elsewhere).

Situationists argue that skillful activities such as navigating an environment or cooking a meal can be conducted without conceptual thought in this sense, and that these abilities are at least as important a part of cognition as abilities that require conceptual thought (Cantwell-Smith, 1999). In a similar fashion, the situated perspective on emotion views emotions as forms of skillful engagement with the world and resists the view that they either are or essentially involve conceptual thought. The ability to

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emote is not to be explained in terms of propositional attitudes and their use in practical and theoretical inferences. Instead, the contentful of emotions emerges from the fact that they enable dexterous interactions with the environment. Importantly, when ascribing this form of emotional content to an organism, we are entitled to use concepts not possessed by the organism having the emotion, a standard condition for labeling a form of mental content as nonconceptual (Bermúdez, 2003).[3]

Although there is no room here to elaborate on the specifics of nonconceptual emotional representation, what appears to be crucial is that it is an action-oriented form of representation (Griffiths, 2004b; Scarantino, 2005). Emotional content has a fundamentally pragmatic dimension, in the sense that the environment is represented in terms of what it affords to the emoter in the way of skillful engagement with it. To get a more vivid intuitive grip on this, imagine the world-as-perceived (*ümwelt*) of an antelope suddenly confronted by a lion. The dominant elements of the antelope's *ümwelt* are escape affordances (Scarantino, 2004), as all of its cognitive, perceptual, and motoric abilities are recruited to discover and execute an action sequence that evades the predator. This representation of the world in goal-oriented terms is required by the urgency of the situation, which demands selectively transforming inputs into opportunities for life-saving output rather than generating a multipurpose representation of the environment.

A situationist, action-oriented approach to emotional content is diametrically opposed to classic cognitivist theories of emotions, which take emotions to be evaluative judgments or combinations of beliefs and desires (Marks, 1982; Nussbaum, 2001; Solomon, 1993). Although this approach may give an accurate account of some forms of sophisticated human emotionality, it falls short as a general theory of emotions. In particular, the assumption that conceptual thought is essential for emotion prevents us from making sense of emotions in infants and animals. This not only is wildly counterintuitive (monkeys are never really afraid) but also deprives us of two of the most fruitful avenues for the study of emotions: comparative animal studies and the exploration of ontogenetic emotional development. It is also inconsistent with the phenomenon of affective primacy (Öhman, 1999) in which emotion systems display some of the properties of a Fodorian module (Fodor, 1983): they are fast, mandatory, cognitively impenetrable, and have limited central access. The case of phobias is exemplary in this respect, as a phobic can reconcile the conceptual thought that the object of their phobia is completely harmless with utter terror toward it. The traditional cognitivist must assimilate phobias either to inconsistent beliefs or to self-deceit. In the case of fear at least, there is good scientific reason to believe that phobias result neither from logical error nor from self-deceit, but from the neural architecture of the emotion system. By means of ingenious lesion studies, LeDoux (1993) has demonstrated that fear can be elicited in a reflexlike fashion through a neural low road that projects along a subcortical pathway directly to the amygdala and bypasses the neocortex. Because full-blown conceptual thought is generally assumed to involve the neocortex, this appears to be strong evidence that such conceptual thought is not essential for fear.[4]

The biggest hurdle for a situated perspective of emotions is constituted by the so-called higher cognitive emotions (for skepticism about this label, see section 6). Guilt, shame, resentment, envy, and embarrassment, for example, seem connected by their very definitions to a range of sophisticated conceptual abilities. This perspective is supported by the psychological literature on emotional appraisal. The influential account of Lazarus (1991) suggests that each emotions is caused by an appraisal whose content can be captured by a core relational theme. Guilt is caused by the appraisal that one has transgressed a moral imperative and shame by the appraisal that one has failed to live up to an ego ideal. These appear to be paradigmatically conceptual thoughts, which demand possession of concepts such

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as moral imperative, self, and ideal. Conventional appraisal theory thus seems to tie these emotions to conceptual thought. But this not only would imply that emotions like guilt, shame, and even anger cannot conceivably occur in children and animals but also would be inconsistent with the apparent occurrence of emotions such as victim guilt (Parkinson et al., 2005, and see next paragraph) or shame generated by merely interacting with a higher-ranking member of the community (Fessler, 1999).[5] Confronted by these and other difficulties, appraisal theorists have come to accept that even such apparently conceptually complex appraisals as Lazarus's core relational themes can be made (1) without the information evaluated being available to other cognitive processes, (2) before perceptual processing of the stimulus has been completed, and (3) using only simple, sensory cues to define the property that has to be identified. The resultant multilevel appraisal theories (Teasdale, 1999) suggest that the same content can be possessed at different levels of appraisal, a view consistent with the idea that some levels of appraisal involve nonconceptual content.

The situated perspective on emotions identifies emotions like guilt and shame in a way that leaves open the extent to which they involve conceptual thought. The question becomes whether the social transaction corresponding to the emotion can occur in the absence of the appropriate conceptual thoughts. Parkinson et al. (2005) offer us reasons to think that this is indeed the case for many higher cognitive emotions. They report a study by Kroon (1988) in which only 28 percent of experimental subjects reporting guilt experiences deemed themselves causally related to the event that provoked their guilt. Parkinson (1999) further supports the view that it is not necessary to engage in thoughts of moral transgression to feel guilty by documenting instances of guilt generated by unwarranted accusations from relevant others. These forms of guilt can be explained from a transactionalist perspective if guilt is a form of skillful social engagement aimed at reconciliation. When someone we care about accuses us, even unjustly, a need to repair the relationship emerges. Guilt is often a good strategy to meet this need, because it conveys a message of sympathetic suffering and the intention to avoid future involvement in harmful events affecting the accuser.

The transactionalist perspective makes sense of many otherwise mysterious forms of higher cognitive emotion. For example, although embarrassment has usually been associated with the recognition of personal failure with respect to relatively unimportant norms of conduct, embarrassment can be elicited simply by being pointed at in public (Lewis, 2000) or being deservedly praised in public (Parrott & Smith, 1991). Parkinson et al. (2005) interpret this as evidence that embarrassment can be a simple response to public attention, which does not presuppose negative self-evaluation. Embarrassment can thus occur as a result of mere unwanted attention, which may or may not be the result of having committed a faux pas. From this perspective, embarrassment may be available to prelinguistic children. Reddy (2000) reports the combination of coy smiles and gaze aversion in two-month-old infants, which suggests the possibility that primitive forms of embarrassment may emerge much earlier than the cognitive capacities generally assumed to underlie them: "the dynamics of interpersonal interaction may produce emotion without the internal cognitive representation of those dynamics. All that is required is a basic perception of self in relation to others, which may well be present at a very early age" (Parkinson et al., 2005, p. 210). This idea will be enlarged upon in the next section.

4. Cultural Scaffolding

The concept of environmental scaffolding has been central to situated cognition research: intelligent behavior is guided and supported by the context in which it unfolds. The emphasis here is on the active contribution of the environment to the cognitive process (Clark & Chalmers, 1998).

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To disregard the enabling properties of the environment is to lose sight of the fact that the causal structure underlying a great many cognitive achievements projects into the relational space between cognizer and environment.

A situated perspective on emotion recognizes that the environment plays an active role in structuring and enabling emotional engagements, which like cognitive engagements are scaffolded by their natural context of occurrence.[6] The environment scaffolds emotion in two ways. Synchronically, the environment supports particular emotional performances – particular episodes of, say, anger or sadness (see section 5). Diachronically, the environment supports the development of an emotional phenotype or repertoire of emotional abilities. Thus, the provision of confessionals in churches enables certain kinds of emotional performance (synchronic scaffolding), and the broader Catholic culture supports the development of the ability to engage in the emotional engagements of confession (diachronic scaffolding). Synchronic scaffolding has received more attention than diachronic scaffolding in the literature on situated cognition (but see Thelen & Smith, 1994). In contrast, there is more research on the diachronic, developmental role of affective culture than on its synchronic role. This is a by-product of the longstanding debate over nature versus nurture in emotion theory.

To appreciate the potential interest of the extensive body of research on emotional development, we need to diffuse the heated but ultimately sterile debate over nature and nurture. Situated perspectives on emotion have traditionally been aligned with social constructionism because of the simplistic view that evolved features of the mind must develop in ways that are insensitive to the social environment – they are programmed in the genes (e.g., Ratner, 1989). Fortunately, it is increasingly recognized that evolution does not construct genetic homunculi but developmental systems designed to function in a developmental context that, in a species like ours, includes socialization and exposure to all those factors that make up a culture (Cosmides, Tooby, & Barkow, 1992). Hence a feature of the emotional phenotype may be both a (phylogenetic) product of evolution and an (ontogenetic) product of a rich context of socialization. A fully adequate resolution of the nature-versus-nurture debate, however, requires the additional recognition that the role of the developmental context is not restricted to activating alternative outcomes prefigured in a disjunctive genetic program (Griffiths, 1997; Griffiths & Stotz, 2000). Developmental systems are usually competent to produce viable phenotypes outside the specific parameter ranges in which they have historically operated. This may even be an important source of evolutionary novelty (Schlichting & Pigliucci, 1998; West-Eberhard, 2003).

In our view, an adequate perspective on the relationship between evolution and social construction must recognize (1) that the way developing humans respond to inputs from the social environment and the fact that the social environments provide those inputs may both be subject to evolutionary explanation, and (2) that the biological endowment of a healthy human infant determines a norm of reaction that includes a large range of emotional phenotypes, not all of which have been specifically selected for nor need to have occurred before in human history (for similar perspectives, see Bjorklund & Pellegrini, 2002; Parkinson, forthcoming). That said, we hope that we can go on to discuss the role of the environment in the genesis of emotions without being accused of ignoring biology.

Parkinson et al. (2005, p. 224) formulate a useful framework for the study of the environment's many roles. They discuss both how the development of an emotional repertoire is diachronically scaffolded by the cultural context in which an individual grows up and how specific emotional performances are synchronically scaffolded by the social and cultural context in which they occur. They explore the potential social influences on emotion under the two broad areas of ideational factors

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and material factors, offering an adaptation of Markus and Kitayama's (1994) model. Ideational factors include normative standards about when emotions should be experienced or expressed (e.g., American wedding guests are normatively required both to be happy for the couple and to convey their happiness), emotion scripts (shared internalized understandings of the standard unfolding of an emotional episode), and ethnotheories (culture-specific belief systems about the nature and value of emotions). Material factors include emotional capital (e.g., the emotional resources associated with having a specific social status, gender, etc.), venues in which certain emotional performances are favored (e.g., a confessional, a stadium, a temple), and a range of emotional technologies for the management of emotions, from prayer beads to Prozac.

Parkinson et al. (2005) draw on existing work on emotional development to construct a model of the development of a culturally situated emotional phenotype (pp. 235–248). They distinguish three main ontogenetic stages: primary intersubjectivity, secondary intersubjectivity, and cultural articulation.

Primary intersubjectivity emerges in the first few months of a child's life, when patterns of attraction and aversion are established with objects and relevant others, most prominently caregivers. One form of emotional engagement emerging at this stage involves struggling in response to a tight embrace (Camras, Campos, Oster, Miyake, & Bradshaw, 1992). Parkinson, Fischer, and Manstead identify this as the ontogenetically earliest form of anger, despite the fact that the concepts that make up the core relational theme of anger are not available at this point. This identification is made possible by thinking of anger as a type of social transaction rather than as a conceptual thought embodying a core relational theme (see section 3). The primary anger reaction in infants is developmentally continuous with episodes of adult anger in which the core relational theme is not instantiated, such as anger elicited by repeated failure to open a jammed door.

When the child is about one year old, Parkinson et al. (2005) envisage the emergence of secondary intersubjectivity, characterized by the recognition not only of people and objects but also of the relations existing between them. A classic example of emotional engagement emerging at this stage is social referencing. Infants learn to engage objects emotionally in light of the emotional responses other people have to them. For example, if toddlers observe a disgusted expression on their mother's face when they are handling a toy, they are less inclined to play with it (Hornik, Risenhoover, & Gunnar, 1987).

Finally, infants articulate their emotions with the help of their emerging conceptual resources (cultural articulation). Drawing on symbolic resources in the surrounding culture, most important those afforded by language, the child organizes its experience of emotional transactions in conceptual form.[7] It is at this stage that ideational factors such as emotion scripts and display rules, and material factors such as emotional capital and emotional technologies have their greatest impact on emotional development.

It is in their understanding of cultural articulation that Parkinson et al. (2005) depart from traditional social constructionism. Articulation does not simply cause emotions to take on the form suggested by the local affective culture. While the articulated, concept-mediated emotion is a real component of the emotion system, it is superimposed on an existing emotional repertoire grounded in primary and secondary intersubjectivity: "We don't learn to get angry in the first place by following cultural rules, even if those rules are applied to our anger after the fact." (Parkinson et al., 2005, p. 247). The conceptual articulation of the emotion allows for the emergence of tensions between emotional engagements reflecting different ontogenetic stages (e.g., some episodes of anger may not fit normative rules for their appropriate elicitation, as in the case of the jammed door). In such cases the subject will often struggle to interpret a spontaneous emotional response so as

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to fit the cultural articulation of an appropriate emotion.

Parkinson et al.'s (2005) account of the ontogeny of emotion allows individuals raised in different affective cultures to develop different emotional phenotypes. This could happen in either of two ways. First, individuals do conform to a significant degree with the norms and scripts that they have internalized. Second, all sorts of cultural differences – physical child-care practices, common toys, and so forth – may affect emotional development. It is worth noting, however, that these latter influences need not necessarily increase the fit between emotion as experienced and emotion as articulated. It is perfectly conceivable that some element of the upbringing of children in an affective culture might make it harder for them to conform to its norms as adults than would otherwise be the case. In any case, even when cultural articulation has had its full effect on the development of the emotional repertoire, a gap remains that allows emotions to occur in the absence of the conceptual conditions taken to define them.

We now turn from the cultural scaffolding of emotional development (diachronic scaffolding) to the cultural scaffolding of emotional performances (synchronic scaffolding). For society to function smoothly, individuals must have the right emotions at the right times, and it is not left to individual psychological processes to ensure that this occurs. It is hardly necessary to describe the emotional technologies used to ensure that soldiers hate the enemy, feel loyalty to their unit, and are not overwhelmed by fear in combat. Parkinson et al. (2005) use the more cheerful example of the wedding ceremony, in which ritual, music, and setting scaffold participants' performances of their complementary affective roles. It is not left to chance to make a wedding a big day for all concerned. Such real-time socialization is an alternative to inducing conformity with local affective norms via diachronic socialization (Parkinson et al., 2005, p. 226).

Another real-time process inducing conformity to emotional norms is social appraisal, in which an individual's appraisal of a situation is linked to that of others. The most famous experiment on social appraisal (more precisely, social referencing) demonstrated that the willingness of infants to crawl over a visual cliff reflected whether their waiting mother produced a positive or negative facial expression (Sorce, Emde, Campos, & Klinnert, 1985). Similar processes occur in adults. A tactless remark can be shrugged off when the other members of a social gathering treat it as a nonevent, or when they laugh it off, whereas it may be appraised as a deadly insult if bystanders meet it with silence or with a sharp intake of breath. Such distributed appraisal provides an emotional correlate to distributed cognition (e.g., Hutchins, 1995).

Real-time socialization is perhaps the closest parallel in emotion research to the forms of scaffolding that have been the focus of much philosophical discussion of situationism, such as the notorious notebook of Clark and Chalmers (1998). In our view, too much attention has been devoted to whether such cognitive aids imply that cognition is literally spread out into the world. Similar claims have been made in the literature on the emotions, with emotions said to exist in the social space between transactants, and so forth, but we believe it would be a mistake to focus on these questions, which are largely semantic. The real interest of situationist accounts of emotion lies in their methodological prescriptions for future psychological study of the emotions. We will return to this theme in section 6.

5. Dynamic Coupling

A situated perspective on cognition includes the realization that cognition is dynamically shaped by the context in which a cognitive episode takes place. This context changes over time, sometimes as a consequence of the cognitive activity. Context dependence generates a system of reciprocal causation that classic approaches to the mind tend to neglect, as they abstract from the local properties of the environment (Cantwell-Smith,

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1999). A situated perspective on emotion explores some of the same themes, focusing on the temporal dynamics of skillful emotional engagement, exploring the way in which the emotional episode shapes the context of its development and is in turn shaped by it. Because the context of emotional episodes is largely social, understanding the dynamic coupling between emoter and environment amounts to understanding how the unfolding of an emotion episode affects the behaviors of other organisms and is in turn shaped by their behavior. Emotion is a form of skillful engagement with the social environment that involves a dynamic process of negotiation mediated by reciprocal feedback between emoter and interactants. This feedback is provided by reciprocal emotional signals.

Researchers on situated cognition have been strongly influenced by the dynamical cognitive science approach featured in the collection *Mind as Motion* (Port & van Gelder, 1995). The dynamicist ideas presented here have a rather different pedigree, as they are primarily grounded in the study of relationship dynamics (Hinde, 1979, 1981). This large body of work on topics such as infant attachment and romantic relationships starts from the premise that relationships are not an immediate function of the properties that individuals bring to a relationship, but emerge as a result of specific interactions between those individuals and inputs from a changing environment.

The ethologist Robert Hinde (1985a, 1985b) was the first to articulate the idea that emotional behavior can be a form of negotiation. He noticed that several kinds of emotional expressions, in both humans and animals, are issued only when a recipient is there to be influenced by them, and that it is the responses of the recipient that determine the subsequent behavior of the individual exhibiting the initial emotional behavior rather than the presumed emotion expressed by that behavior. Hinde noted that birds often flee after having issued a threat expression. Indeed, the threat display may be a better predictor of flight than of attack. His interpretation was that threat displays "were given when the bird was uncertain what to do" and that "which of the several possible responses it showed next depended on the behavior of the rival." Hence threat expressions should be understood as "signals in a process of negotiation between individuals" (Hinde, 1985a, p. 109).

Hinde cast doubt on the assumption that "emotional behavior is the outward expression of an emotional state, and that there is a one-to-one correspondence between them," an assumption he associated with Darwin (1872). He also noted that the assumption of a one-to-one correspondence between emotional states and emotional behaviors does not make evolutionary sense, as it may be adaptive for an organism to mislead others about their motivational state. Natural selection will often favor sending nonveridical or ambiguous messages, a point that has also impressed transactional psychologists (Fridlund, 1994, 1997). Hinde acknowledged, however, that signals do not always serve negotiating purposes. His conclusion was that we should expect emotional behaviors to lie on a continuum between expressing and negotiating:

> *Such considerations suggest the view that emotional behavior may lie along a continuum from behaviour that is more or less purely expressive to behaviours concerned primarily with a process of negotiation between individuals. . . . In animals, bird songs lies nearer the expressive end, threat postures nearer the negotiation end. In man, spontaneous and solitary laughter are primarily expressive, the ingratiating smile primarily negotiating. However most emotional expressions involve both. (Hinde, 1985b, p. 989)*

We consider this an important insight. Hinde's suggestion is that many emotional expressions have a nonarbitrary relation to the organism's motivational states, but at the same time are aimed to make a move in a negotiation whose outcome is open ended and crucially dependent on the recipient's responses.

The first thing that is left open by an expressive action is whether the emoter will manifest the action tendency associated

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with that emotion. This will depend on what affordances are available to the emoter in the local context in which the emotional episode unfolds. Notably, neither the available affordances nor the emoter's intention to act on a particular one of them are preordained at the beginning of the episode, but instead are partially determined by the interactant's responses, which are in turn influenced by the ongoing emotional signals received. Consider, for example, an episode of anger in the context of a marital confrontation, and assume that an action tendency of retribution is associated with anger. There are many ways in which the retributive action tendency could be manifested: sulking, insulting, leaving the house, asking for a divorce, and so on. Conversely, the retributive tendency could be inhibited. Anger can be diffused by emotion management techniques or redirected at another object (e.g., the poverty that may be the external driver of marital discord), or the aroused state of either party could facilitate the emergence of another emotion (e.g., fear of losing one's partner). This flexibility is one of the trademark properties of a large class of emotions, which distinguishes them from reflexlike responses like startle, and perhaps affect programs, whose behavioral consequences are relatively indefeasible.

What determines how a particular episode of anger unfolds is a feedback mechanism that involves the reciprocal exchange of signals delivered by expressions and other behavior in the course of time. The currency of this communication includes fixed stares, loud and high-pitched tones, brisk gestures, a confrontational demeanor, tears, firm declarations, forceful movements, and their strategic opposites (e.g., amicable stares, low-pitched tones, smiles) that will determine if and how anger manifests.

This is where the metaphor of negotiation comes to full fruition, as the anger episode is not exhausted by the interactant's reception of a one-shot message, but is dynamically shaped by how the interactant responds to the initial message, by how the emoter responds to the interactant's response, and so on. This context dependence is entirely lost if anger is understood only as a response to a certain class of stimulus situations, ignoring the temporal dynamics of its unfolding and the strategy of relationship reconfiguration it embodies.

An emotional expression may also be open ended in a more radical way: in some cases the identity of the initial emotion is shaped by the ongoing process of negotiation. We are accustomed to think of anger as brought about by the appraisal of being slighted, and this is certainly what happens in many cases of anger. But on occasion this appraisal is best understood as the outcome of negotiation in an episode that already has the marks of the emotional (e.g., physiological arousal, focused attention, an urgent tendency to realign one's role in the context of a relationship). What is left partially undetermined and in need of context-dependent disambiguation is what exact emotion one is experiencing. Many marital quarrels begin from small matters of contention, which engage the partners emotionally, but that general emotionality can develop into a variety of distinct emotions. This idea of emotional uncertainty echoes some of the dynamics of threat displays described by Hinde (1985a; 1985b). The bird's confrontation with a rival activates an emotional engagement that is open ended in the sense that at the beginning of the process of negotiation it is undetermined whether the bird is angry or afraid. The identity of the emotion will be shaped through time by the responses received to the threat display. The appraisal that type identifies the emotion does not occur at the beginning of the emotional episode but in the course of it, depending on whether the interaction affords the advantageous manifestation of one emotion rather than the other.

At first blush, a situated perspective on emotions is in tension with the affect-program conception of emotions in the Darwin-Tomkins-Ekman tradition (Darwin, 1872; Ekman, 1972; Tomkins, 1962). In this theoretical tradition, a low-level (modular) appraisal occurs on exposure to certain stimuli and is followed by a cascade of responses, including physiological, expressive, and

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behavioral ones, which follow the appraisal quickly and automatically. A specific expression is associated with each basic emotion and consequently carries veridical and highly reliable information about what emotion is unfolding. The apparent conflict between affect program theory and a situated approach, however, can be at least partly defused by noticing that the two approaches operate on a different temporal scale. The situated approach focuses on longer emotional episodes that may comprise the activation of affect programs as proper parts. For example, a young man who is suddenly poked in the back while standing in a line will automatically undergo affect program anger, manifested in a reflex-like fashion through forceful turning around, baring of the teeth, and an aggressive action tendency. But there is no obstacle to conceiving of this execution of the anger affect program as part of a longer episode, which includes what happens after the identity of the offender has been determined. It is at this stage that the idea of negotiation acquires explanatory purchase. If the offender is a good-looking young woman who profusely apologizes, the agonistic action tendency is likely to be promptly substituted by an affiliative action tendency. If the offender is another young male, however, a different dynamic emerges, which may lead to an exchange of anger displays and ultimately escalate into a physical fight.

Moreover, a situated approach is not committed to the view that all things we call emotions in ordinary language are social engagements with a negotiating dimension. What we have described are emotions lying toward the negotiating end of the continuum discussed by Hinde, and the vernacular emotion domain contains states and processes on which a situated approach sheds no light, as we discuss subsequently.

6. What Is the Value of the Situated Perspective on Emotion?

In this final section, we illustrate what we take to be the theoretical payoff of a situated perspective and try to diffuse some possible misunderstandings. Let us begin with what we are not saying. We are not claiming that, because the social environment provides dynamic scaffolding for the unfolding of emotional episodes, an emotion literally extends into the environment. This sort of ontological claim may be interesting in principle, but we do not think that its possible heuristic value for the psychology of emotion is likely to be worth the fuss it causes. An extended-emotion thesis potentially confuses the claim that the environment makes a causal contribution to a mental process with the more ontologically demanding claim that it is a constituent part of it (see Adams & Aizawa, this volume). Therefore, until it proves impossible to phrase the substance of the situated perspective in any other way, we will remain neutral on the extended-emotion thesis.

There are other potentially interesting questions we wish to remain neutral about, because we do not think the value of the situated perspective on emotions hinges on how we answer them. For example, it may be debated what sort of externalism about emotions is supported by the data and theory we have presented, or whether group emotions arising through mutual social referencing challenge methodological individualism in the psychology of emotion. We leave it to others to take definitive positions on these issues.

It may forestall another misunderstanding if we state explicitly that the plausibility of the perspective we propose is not hostage to the success of the wider situationist program. The situated perspective on emotion is supported, in so far as it is currently supported, by experimental data and theoretical considerations about the emotions.

The real theoretical payoff of the situated perspective on emotions is methodological. By shifting theoretical focus from the intrapsychic to the interpersonal, from the unbidden to the strategic, from the short lived to the long lived, from the context independent to the context dependent, from the static to the dynamic, the situated perspective points the attention of the research

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community to aspects of emotions that have been unduly neglected and that may hold the key to understanding the nature and function of a large class of emotions. These aspects of emotion have not been entirely ignored, of course (e.g., Frijda, 1986 and elsewhere; Solomon, 1998), but we think they would have become more central if a broader perspective on the mind suitable to encourage them had been available. We believe that the situated approach can offer such perspective: the aspects of emotion we have highlighted as worthy of theoretical exploration largely correspond to those the situationist movement has singled out as neglected in classical cognitive science.

We emphasize once again that the situationist perspective is not, in principle, incompatible with other existing theoretical approaches (e.g., neo-Jamesianism, affect-program theory). In part this is a matter of temporal scale of resolution, as outlined in section 5. More important, we believe, and have argued extensively in earlier work, that the plurality of states and processes that form the domain of emotion leave emotion theorists with no viable alternative to theoretical pluralism. Griffiths (1997, 2004a) has argued that it is unlikely that all the psychological states and processes that fall under the vernacular category of emotion are sufficiently similar to one another to allow a unified scientific psychology of the emotions. The psychological, neuroscientific, and biological theories that best explain any particular subset of emotions will not adequately explain all emotions. In a slogan, emotion is not a natural kind. Scarantino (2005) has argued that the scientific project of answering questions of the form, What is an emotion? or What is anger? is best understood as a project of explication. Explication involves offering a theoretically motivated precisification of an existing concept. Explications are not good or bad simpliciter but relative to the theoretical objectives that motivate them. Where there is more than one sensible theoretical objective, quarreling about which explication should replace the original concept is simply not to have understood the ground rules of the activity of explicating.

We have suggested that the situated perspective on emotions affords new theoretical leads for the explication of the so-called higher cognitive emotions (e.g., guilt, shame, embarrassment). Although these are the emotions involved in phenomena we are most eager to understand (e.g., morality, art, mental disorders, daily emotional management), they are also among the most complex and challenging of emotional states. Although one of us made extensive use of the phrase "higher cognitive emotions" in earlier work (Griffiths, 1997), we now regard it as potentially confusing (Griffiths, 2004a). First, it suggests that the occurrence of these emotions necessarily involves conceptual thought, a view we have strongly questioned. Second, it seems almost irresistible to align the distinction between basic emotions and higher cognitive emotions with a distinction between two sets of vernacular emotion categories – anger, disgust, surprise being paradigmatically basic and guilt, shame and embarrassment being paradigmatically higher. We believe, however, that there is as much need for pluralism in the theoretical treatment of subordinate categories of emotion as there is in the treatment of the superordinate category of emotion: some instances of anger, disgust, or surprise may be adequately accounted for in the affect program framework, but others may require other theoretical perspectives, and the same holds for episodes of guilt, shame, or embarrassment. The situated perspective on emotion, and the transactional psychology on which we have drawn in describing it, is just one of these theoretical approaches, and it is meant to cut across the dichotomy between basic and higher cognitive emotions as generally understood.

In a nutshell, the situated perspective suggests that certain forms of emotions cannot be understood without expanding our field of view. By confining our attention to neural circuitry or conceptual thought alone, we risk focusing on the proverbial tail of the emotional elephant. Its trunk and body may lie further afield, in the social and

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cultural environment in which emotional episodes unfold and emotional phenotypes develop.

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Notes

1 For the breadth of current psychological research, see (Dalgleish & Power, 1999; Ekman & Davidson, 1994; Lewis & Haviland-Jones, 2000). Recent philosophical work on emotion is surveyed in (Griffiths, 2003) and collected in (Solomon, 2004).

2 The strategic role of the emotions has long been noticed by economists (Frank, 1988; Hirshleifer, 1987). Until recently, however, this recognition was not linked to a new account of the nature of emotions themselves (but see Ross & Dumouchel, 2004). Not surprisingly, behavioral ecologists have also been sensitive to the strategic role of emotions in social interaction (e.g. Fessler & Haley, 2003).

3 The nonconceptual content literature has so far focused primarily on nonconceptual perceptual states, nonconceptual subdoxastic states, and nonconceptual representational states of creatures without language (Bermudéz, 2003). We think emotional phenomena constitute a representational domain of their own, which embodies a yet-to-be-understood brand of nonconceptual content (Griffiths, 2004a, 2004b; Scarantino, 2005).

4 The view that emotions are evaluative judgments has been extensively criticized for these reasons. Its defenders have replied that judgment need not involve full-blown conceptual thought (Nussbaum, 2001, 2004). This risks collapsing cognitivism into the uncontroversial view that emotions are in some sense or other directed onto the world (Scarantino, 2005, see also section 2.2).

5 Fessler (1999) reports that *malu*, the emotion most closely corresponding to Western shame in the culture he studied, was frequently manifested under these circumstances.

6 The term *engagement* has been previously used to characterize emotions, for example by Parkinson (in press) and by Solomon (2004). This similarity may be explained by the presence in Solomon's cognitivism of a social constructionist strand, related to Sartre's theory of emotions, which emphasizes the active side of emotions along broadly transactionalist lines.

7 There is an evident parallel here with the Annette Karmiloff-Smith's (1992) theory of representational redescription.

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