

Chapter 11

Emotions and the social niche

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Recent influential theories of emotion in philosophy and cognitive science (e.g., appraisal theories, neo-Jamesian theories, etc.) tend to share a common assumption: emotions consist of inner states or processes confined to the biological borders of the agent. Whatever their ontology (e.g., evaluative judgments, physiological states of bodily arousal, etc.), emotions are private states individuated by their neurobiology, cognitive content, behavioral expression or phenomenal character (e.g., Damasio, 1999; Laird, 2007; Nussbaum, 2001; Prinz, 2004; Russell, 2009; Schwarz & Clore, 1988).¹

While helpful in characterizing some aspects of emotions, these individualistic approaches nevertheless often fail to account for the extent to which emotions are mediated by the agent's *social niche*—that is, the extent to which emotions emerge from within, and area at times partially constituted by, the dynamics of an agent's ongoing interaction with evolving social contexts. This chapter considers emotions not as private entities but rather as social phenomena. I argue that emotions might be productively thought of as distributed processes of social niche construction: forms of engagement whereby agents manipulate their social context to establish, modify, and negotiate relationships, communicate intentions, and attune themselves to the mental life of others. I primarily focus on emotions as they emerge from within the dynamics of face-to-face engagement and consider how material and ideational factors of our social niches support the emergence of emotions on both short-term and long-term time scales. In doing so, I draw upon theoretical resources of distributed approaches to cognition as well as several different strands of empirical work, including research in developmental psychology.

The notion of the (cognitive) niche

Niche construction occurs when an organism's choices, activities, and metabolic processes actively create and/or modify its environment (Laland, Odling-Smee, & Feldman, 2000).

¹ There are, of course, some notable exceptions, such as Averill (1985), Parkinson (1996), and Parkinson, Fischer, and Manstead (2005), all of whom emphasize the socio-relational character of emotions. However, by appealing to work on distributed cognition in philosophy of mind and cognitive science—as well as a focused consideration of empirical work in developmental psychology—I hope to bring additional resources to this discussion that aren't explicitly dealt with in the work of these authors.

Over time, these choices and modifications introduce new selection pressures that, over the course of even more time, spur the development of novel evolutionary responses. For example, the presence of spider webs over the course of many generations has modified the spider's selective niche by allowing for enhanced web-based forms of crypsis (Laland et al., 2000, p. 133). Bluefin tuna swim faster than their anatomy and musculature will allow by exploiting local currents, merging with these currents and using their fins to create additional vortices to propel themselves forward (Triantafyllou & Triantafyllou, 1995). Beavers famously engineer their environments in sophisticated ways to respond to seasonal and predatory challenges. These modifications alter the selective landscape and scaffold the biological evolution of their progeny. Many of the skills and sensitivities of current-day organisms evolved from the niche constructing “cultural work” of their ancestors.

Similar effects can be observed in human niche construction. We fill up our niches with props, artifacts, and technologies that loop back onto us in ways that, over both short- and long-term time scales, transform and scaffold processes of individual and cultural learning. These artifacts comprise the material edifice of our cultural ecology: language, symbols, rituals, cultural norms and practices, tools, weapons, shelter, clothing, etc. From a cognitive niche construction perspective, these artifacts are tools for thought that transform the problem space of various target domains in ways that profoundly assist our thinking and reasoning (Clark, 2005; see also Dennett, 1996; Gregory, 1981).

The notion of cognitive niche construction is at the heart of recent distributed approaches to cognition and related discussions of the extended mind thesis (Clark, 2008; Clark & Chalmers, 1998; Hutchins, 1995; Menary, 2010; Rowlands, 2010). These approaches emphasize the manner in which features of the cognitive agent's niche constrain—and more radically, at times *constitute*—features of their cognitive processes. This latter claim flows from a strong emphasis on the active nature of cognition. Cognition is seen to partially consist in the active manipulation of the informational structure of the local environment (i.e., ongoing cycles of niche construction), which generates dynamic feedback and feed-forward processes cutting across brain–body–world boundaries.

Consider multiplying two three-digit numbers (Wilson & Clark, 2009). According to the traditional computationalist view, multiplication is a three-step process that occurs entirely inside the head. First, visual or auditory input from the external world (the numbers seen or heard) is encoded into internal symbols; second, these symbols are internally manipulated according to mathematical rules; third, these manipulations lead to behavior explainable on the basis of output from step two. The individual's internal resources are sufficient to accomplish this task.

However, contrast this cognitivist model with a niche construction approach. According to the latter, multiplication is a distributed process spanning the entire brain–body–world system. This is evident when we consider how multiplication involves the active manipulation of both internal *and* external symbols: things like written marks on a piece of paper, blackboard, or symbols on a computer screen. Moreover, working through a multiplication problem consists of dynamic perception-action cycles that drive the computational

process along: the physical act of writing on paper or a blackboard; scanning back and forth from blackboard to paper and back again; tapping a keyboard to enter data into a computer or calculator; consulting a fellow problem solver for assistance, etc. Manipulative actions, as well as the tools and environmental resources they make use of, are thus part of the larger (distributed) computational system.

A distributed approach to cognition in this way emphasizes the extent to which the material structures of our cognitive niches drive and enhance our thinking and reasoning. But humans do more than think and reason. We feel and experience. And we do so in context—that is, within social niches we inherit and create. The social world—the shared, affectively-charged context of interpersonal engagement—is itself a fertile arena of ongoing niche construction. Yet this fact has not been adequately addressed by proponents of the niche construction approach to human cognition. The stories we hear mainly involve human problem-solvers interacting with non-human props and artifacts; rarely are *other people* part of this story.² Even less frequently are emotions or feelings mentioned. Yet other people, as well as the emotions they express and elicit, are persistent parts of our social niches. Having introduced the notion of niche construction, I turn now to a consideration of this idea in the context of emotions and social interaction.

The notion of the (emotional) niche

Within the philosophy of mind and cognitive science, the predominant perspective on emotions has been the intraindividual perspective (Miller & Leary, 1992). Emotion research has largely focused on nonsocial situations such as emotional responses to physical threats (see Boiger & Mesquita, 2012, for an overview). The environment is thus of secondary importance for understanding the nature and development of emotions. While the environment may provide stimuli that trigger different states of bodily arousal identified by the brain as affect (Damasio, Everitt, & Bishop, 1996; Panksepp, 2004; Prinz, 2004), or, alternatively, offer information useful in appraising salient aspects of a particular situation (Arnold, 1970; Scherer, 1999; Solomon, 1976), the main effort has been to identify the internal mechanisms responsible for generating emotion.

This individualistic approach to emotions is potentially problematic. By focusing exclusively on intrapsychic or physiological features of emotions—and emphasizing their unconscious, automatic, and involuntary aspects—an individualistic orientation can overlook the extent to which emotions are socially mediated over both short- and long-term time scales. We are thus left with an abstracted part of the larger “concrete whole” of emotional experience (Dewey, 1895). However, by instead modeling emotions as processes that both emerge from within and are sustained by collective activities of social niche construction, we can more clearly come to see how social and emotional processes intertwine in real time.

² Hutchins (2010) is an exception.

With these thoughts in mind, the discussion that follows has two main aims. First, building off the discussion of cognitive niche construction, I want to argue that emotions are from the beginning of life essentially scaffolded (both synchronically and diachronically) by features of the surrounding social milieu. Second, along the way I also want to indicate—without filling in all of the details—how emotions, as processes of social niche construction, are shaped by both material and cultural features of the environment. In this sense are emotions thoroughly *situated*, dependent upon particular features of the niche in which they unfold, and which they, in part, help structure (cf. Griffiths & Scarantino, 2009).

Synchronic scaffolding and emotional performance in early infancy

Parkinson, Fischer, and Manstead (2005) distinguish two features of the social niche that directly shape the experience and expression of emotion. They term these features “ideational” and “material” factors, respectively (Parkinson et al., 2005, pp. 220–234; see also Markus & Kitayama, 1994). The former are mental structures like values, norms, and rules informing display rules and emotion scripts (“Big boys don’t cry!”; the expectation that one expresses joy at a wedding, grief at a funeral, etc.). The latter are physical structures—resources, settings, and tools—that make up the context in which emotions occur as well as the various technologies that support their emergence. But this distinction is not absolute. Ideational factors are embodied within the material structures of our cultural ecology. For example, the confession booth in the Catholic Church is an emotional technology in which the ideational co-mingles with the material. Its physical structure private setting places practical constraints on emotional conduct therein: minimizing embarrassment, encouraging confession, and creating a space of intimacy in which sins are freely laid bare. It embodies a host of institutional practices and values that are central to the experience and expression of the Catholic faith, including its affective dimensions.

Of course, the confession booth is not something we inhabit until we reach maturity (if we inhabit it at all). But ideational and material factors of the social niche converge within another kind of emotional technology that we all do have access to from the moment we are born: other people. The collaborative dynamics of our face-to-face interactions with other people, I suggest, are examples of social niche construction. These interactions provide real-time scaffolding supporting the emergence and performance of many basic emotions from the very beginning of life.

It was long assumed that infants are born with little awareness of the intersubjective world (cf. Mahler et al., 1975; Piaget, 1954). However, in light of different streams of empirical work in developmental psychology, that assumption has now largely been abandoned. Infants appear to be born with a perceptual and affective sensitivity to the facial expressions, gestures, smells, and sounds of other people. This “primary intersubjectivity” (Trevarthen, 1979) consists of a range of bodily and perceptual skills that animate rudimentary forms of social interaction—including attunement to the emotions of others—prior to the development of theory of mind capacities.

For example, newborns can imitate others' facial expressions (Meltzoff & Moore, 1977), including emotionally relevant facial expressions (Haviland & Lelwica, 1987; Kugiumutzakis, 1999).³ Young infants are also perceptually attuned to the temporal correspondence of facial movements to their own activities; they become highly distressed when previously expressive partners abruptly assume a "still face" during a face-to-face interaction, or when the rhythm of an exchange is noticeably disrupted (Murray & Trevarthen, 1985; Tronick et al., 1978). Infants are also perceptually sensitive to other people in different ways. Newborns show an olfactory preference for maternal amniotic fluid as opposed to that of a stranger (Marlier, Schaal, & Soussignan, 1998). They are highly attuned and responsive to the melodic parameters of the human voice (Krueger, 2013; Papousek, 1992); from birth, infants track the intonation of adult frequencies (Lieberman, 1967), and even at 3 days they co-vocalize with caregivers significantly above chance (Rosenthal, 1982). From the moment they are born, neonates vocalize and gesture in ways suggesting that they are sensitively attuned to others' vocalizations and gestures (Gopnik & Meltzoff, 1997, p. 131).

Of course, social interaction is a relational phenomenon (see van der Löwe & Parkinson, Chapter 9, this volume). And while young infants possess the basic skills needed to participate in the social world, it is caregivers who provide the scaffolding supporting the emergence of their emotions and rudimentary social cognitive capacities. To see how this is so, consider how caregivers supply two crucial social cognitive capacities infants initially lack: attentional control and emotional self-regulation. The organizational qualities of caregiver's interactions with infants serves as the social niche in which these capacities are nurtured and develop.

Consider first attentional control (see Brosch, Chapter 6, this volume). From birth, infants can (within limits, of course) scan features of the environment well enough to see faces—or at least aspects of faces—and imitate them. They even recognize their emotional significance (Kugiumutzakis et al., 2005). Infants are thus born with the basic attentional skills needed to pick up on and respond to the auditory-visual-tactile "packages" that caregivers send their way (Beebe & Gerstaman, 1984). But unlike adult attention, early infant attention is primarily *exogenous* (i.e., bottom-up and involuntary) (Gopnik, 2009, pp. 106–123; Posner & Rothbart, 1998). They have little inner control over their own attention; rather, it is largely determined by things and events in the infant's immediate environment. So, while the quality of infant attention—including its intersubjective quality—is surprisingly rich, its inhibitory component is comparatively underdeveloped.⁴

³ But see Ray and Heyes (2011) for a skeptical interpretation of the imitation literature.

⁴ This developmental trajectory appears to be reflected at the neurochemical level. Cholinergic transmitters, which heighten attention, are abundant at birth; inhibitory transmitters, which suppress attention, develop later. Parietal and sensory systems involved in exogenous attention are online early, developmentally speaking, while top-down frontal regions controlling endogenous attention only mature later (Gopnik, 2008).

This lack of inner control of attention means not only that infants lack an ability to control what they see and experience; they also lack a basic mechanism for emotional self-regulation (Posner & Rothbart, 1998). Their endogenous states, including affect and emotion, are exogenously determined—in many cases, by the physical interventions of caregivers. Via gesture, facial expression, touch, and speech, caregivers shape the character of these interactions in a way that is vital for the development of the infant's social cognitive development (Tronick, 2005; Rochat et al., 1999). More precisely, caregiver's bodily expressiveness is the material scaffolding shaping that particular interactive niche.

How this occurs becomes clearer when we consider the emergence of positive affect in early infancy. Babies are good at expressing negative affect. But they need assistance to experience and express *positive* affect. Since they lack inner control of attention and the capacity for emotional self-regulation, their experience and expression of positive affect “require[s] the participation of an attuned adult who can both construct and coregulate the positive affect in a moment-by-moment process” (Feldman, 2007, p. 609). In other words, the origin of positive affect in early infant experience is *inherently dyadic*. It is the caregiver who modulates and regulates the “vitality contours” (Stern, 1999) giving an interactive sequence its particular affective character. Caregivers continually optimize the stimulus value of their auditory-visual-tactile packages, intentionally crafted to keep the infant in an “optimal zone for play” between over-stimulation and under-arousal (Stern, 2010, p. 108). In short, as a persistent material feature of the infant's social niche, they serve as an external constraint on the emergence and development of the infant's attention and emotions.

For example, consider a fussy child. Her mother wants to elevate her mood. There are a number of strategies available, each of which is rooted in different bodily expressive techniques. Merely holding and gently rocking a distressed infant to help her achieve a quiet state is one simple form of external affect regulation. But a slightly more complex dynamic might accomplish the same thing. Instead of matching the infant's negative affect, the parent might lean closer and vocally express sympathetic emotions (e.g., uttering “Ooh, is someone unhappy?” in an exaggerated sing-song manner whilst frowning). However, the caregiver will quickly elevate the shared affect by smiling broadly and adopting a jollier mode of expression (e.g., “C'mon, then! No need to be sad!” expressed with a rising inflection), followed up with sequences of smiles, raised eyebrows, touches, and positive expressions (cf. Stern, 1995, pp. 421–422). The caregiver uses various attention-sculpting bodily techniques to draw positive affect out of the fussy infant.

There are cultural variations on the sort of techniques mothers will employ; material and ideational factors are simultaneously embodied within different regulatory strategies. For example, within Zulu culture children are expected to be less socially prominent than in European or North American culture. To regulate a fussy infant's expression of negative affect, a Zulu mother will sharply utter “thula!” (quiet) or “njega!” (no) while leaning forward, taking up the infant's visual field with her face and palms, and continue to offer terse vocalizations to cut off any protests from the infant (Spurrett & Cowley, 2010, p. 306). This crowding of the infant's bodily space focuses the infant's attention by removing competing perceptual distractions. And the mother's expressive coordination with the infant—restricting approval

signs such as smiles or comforting vocalizations until the infant has quieted—scaffolds the infant’s transition into a more placid affective state. The shared space between infant and caregiver is thus exploited by both as a social niche that regulates the child’s attention and emotion.⁵

The salient point is that the expressive body of the caregiver—along with the dynamics of the infant–caregiver interaction—scaffold and constrain the infant’s social experience, including their attention and experience of positive emotions. The gestures, behavior, smells, and utterances of the caregiver are material aspects of the infant’s social niche; although as the case of Zulu mothers shows, they embody culturally specific ideational factors, too. These material aspects shape both what the infant feels and how they come to feel it. The caregiver’s physical interventions enable the infant to access a class of experiences (positive affect) and realize a form of cognitive competence (endogenous regulation of attention) that exceed her current level of development, much the way that certain technologies within our cognitive niche enable a computational prowess not possible by the unaided brain alone.

Like our interactions with the cognitive niche, this scaffolding process within the social niche is not a one-way linear process leading from caregiver to infant. Rather, the interplay between the two is cyclical, dynamic, and mutually-responsive. It unfolds within the “we-space” coupling infant and caregiver (Krueger, 2011), the shared space of what Merleau-Ponty suggestively terms “intercorporeality” (Merleau-Ponty, 1968, p. 143). Within this shared bodily space, the infant plays an active role in shaping the affective contour of the exchange. The mother adapts and refines her own responses to the infant’s ongoing expressions. Intercorporeality is thus constituted via bodily techniques available to both newborn and caregivers: various “actions, gestures, modes of comportment, etc. that manifest the intentions, feelings, and more generally subjective ‘states’ of social agents” (Crossley, 1995, p. 146). Given the public character of these techniques, intercorporeality can be seen as grounding the social-material niche in which the infant’s emotions and rudimentary social understanding is first animated and nurtured (Hobson, 2002). This dynamic *collaborative* perspective on the emergence of emotions in early infancy is not available to a staunchly intraindividual approach.

But there is another dimension to the social niche that warrants our attention. As Merleau-Ponty notes elsewhere, intercorporeality presupposes a more basic “anonymity”: a tacit background of meanings, norms, conventions, and common practices that render both the context and content of our embodied interactions intelligible (Merleau-Ponty, 2002, pp. 404–405). While the expressive bodily techniques of caregivers are immediate material aspects of the social niche, they also, as we have seen, embody ideational factors

⁵ Music, including both sung lullabies as well as the quasi-musical character of infant-directed speech (i.e., “motherese”), performs a similar scaffolding function in regulating attention and emotion and entraining rudimentary social cognitive capacities. Cultural variations also reflect the further intermingling of material and ideational factors (see, e.g., DeNora, 2000; Krueger, 2013; Malloch & Trevarthen, 2009; Trehub & Trainor, 1998).

that constrain the format and dynamic of these techniques. By repeatedly bodily engaging with caregivers, infants are progressively entrained into normative (i.e., ideational) practices that form the basis of our common social life. The expressive materiality of others thus not only scaffolds moment-to-moment (synchronic) emotional *performance*; it also scaffolds long-term (diachronic) socio-cultural emotional *development*. This is the idea I consider next.

Diachronicity and ideational factors in emotional development

In the previous section (“Synchronic scaffolding and emotional performance in early infancy”), I appealed to evidence from developmental psychology to argue that attention and emotion in early infancy are synchronically scaffolded by ongoing interactions with the social niche—specifically, the physical interventions of caregivers. This characterization supports the idea that, from birth, emotions are not exclusively internal states. Rather, they are transactions between self and others, supported and shaped in a moment-to-moment sense by the particular social niche in which this transaction unfolds.

As we will see shortly, a characterization of emotions that highlights their transactional character allows us to see more clearly how ideational factors enter into and shape ongoing emotional experience, particularly the complex emotional experiences characteristic of adulthood. But a transactional approach also serves as a helpful corrective to thinking about emotions as inner mental states, which can be misleading. For, not only can this sort of mental state talk potentially over-intellectualize emotions (i.e., both by underplaying their felt bodily character as well as over-emphasizing the extent to which they consist of processes exclusively located in the head). Additionally, it can lead to a static “snapshot” conception of emotions, according to which emotions are decomposed into sequential chains of discrete physiological episodes (i.e., inner states) that intervene between environmental stimulus and behavioral response. This is a misleading way of thinking about emotions. More often than not, emotions—particularly in adulthood—tend to be compositionally complex, evolve over time, emerge from reciprocal causal *loops* as opposed to linear causal *chains*, and are often tightly interwoven with one another.⁶

Imagine that I am seething with anger. I suspect that my wife has been unfaithful. My imagination swells with images of how I suspect this betrayal has unfolded. Each new image intensifies my anger. But things aren’t quite that simple. For anger is rarely a free-standing state. Along with my anger, I actually experience an interrelated constellation of various other emotions: *jealousy* in the face of her betrayal; *shame* at my

⁶ The recursive and circular nature of emotional processing has been ably characterized by advocates of a process theory of emotions, including Lewis (2005), Robinson (2005), and Scherer (2001). I am broadly in agreement with these views. Nevertheless, my interest here is more phenomenological than these authors.

naïve trust; *humiliation* at the thought of others finding out; *sadness* at the dissolution of a long-term commitment; *disgust* at the thought of her being physically intimate with another, etc. Within the throes of this episode, any of these emotions may at any moment take precedence over the others without thereby cancelling out their phenomenal presence. The particular phenomenology of my anger in this context is thus conditioned by the simultaneous upwelling of a flurry of other emotions. Later, however, after some reflection and cooling off, a weary sadness may assume phenomenological prominence without completely effacing the anger that had previously burned so intensely. And when discussing the situation even later with friends, my shame and humiliation may come to the fore, preserving the anger but modifying its felt texture by diminishing its intensity and introducing a more prominent shame-dimension.

Unlike emotions in early infancy, emotions in adulthood are in this way structurally complex and very often long-term processes, “lasting even for years or a lifetime and occupying several levels or dimensions of consciousness” (Solomon, 2006, p. 303).⁷ As the above example affirms, however—along with the developmental evidence discussed previously—emotions emerge and fluctuate as we negotiate various social contexts. More tellingly, they are often modulated *by* these social contexts *as* we negotiate them. Again, many emotions are interactively constituted in the sense that they are deeply interwoven with those comprising our social niche (Downing, 2000).

There are several lessons here. First, this example reaffirms the dynamic and transactional character of emotional experience—the idea, once more, that emotions are both *structurally complex* (i.e., interwoven with other emotions, and comprised of different dimensions like physiological arousal, cognitive judgments, intentionality, felt affect, etc.) as well as *essentially temporal* (i.e., they evolve and develop over time).⁸ When sharing my anger over my wife’s infidelity with friends, my anger solicits an angry response from them, which heightens my own anger, which in turn further animates theirs, etc. Even in adulthood, these dynamic processes establish the temporal structure and interpersonal context—the material factors of the social niche—circumscribing our emotional transactions. Many emotions thus emerge quite literally *between* interactants, within this ongoing mutual adjustment of action, emotion, and intention (Fogel & Garvey, 2007). But how do ideational factors enter into this process?

⁷ While I do think that emotions can be relatively long-term processes, it is not clear to me that they can last for years or even a lifetime, as Solomon suggests. A worry is that this picture conflates moods (pervasive and lingering, object-less affective experiences such as depression or euphoria) with emotions (specific affective experiences defined in part by their object relations and temporal duration). Insofar as this conflation blurs the experiential complexity of our affective life, I’m inclined to think that there is value in a more nuanced taxonomy. This is a complicated question, however, so I set it aside for the sake of brevity. My thanks to the editors for pressing this point.

⁸ So, this view contrasts with Carroll Izard’s characterization of emotions as “brief. . . responses” (Izard, 1974) and Joseph LeDoux’s characterization of emotions as rapid neurological (amygdala) responses distinct from the cerebral activity that generally follows them (LeDoux, 1996; see also Damasio, 1999; Panksepp, 1992).

This brings us to the second important lesson drawn from the previous example: as transactions with the social niche, emotions are forms of engagement or “variations of belonging to the world” (Merleau-Ponty, 2002, p. 415). We use emotions to construct, modify, and negotiate various aspects of our relationships with other people and with the surrounding context (Hinde, 1985; Maclaren, 2011). This is their social niche-constructing function. However, since these processes involve others—and since, moreover, these interactions are always situated in a particular time and place—ideational factors reflecting the temporal and socio-cultural particularities of the context enter into this transactional process in important ways.

Athletic events—and the influence of audience effects therein—are fertile places to observe the intermingling of material and ideational factors in emotional transactions. For example, ten-pin bowling players smile significantly more after producing a positive event (e.g., bowling a strike or spare) when they turn to face their friends than when they are still facing the pins (Kraut & Johnston, 1979). The physical presence of others provides a social niche in which a smile functions beyond merely expressing inner affect. Rather, the smile articulates a strong social motivation: an intention to share one’s happiness and to relish the further development of this experience as mediated by the affiliative displays of others. A similar effect was observed in Spanish soccer fans who issue authentic (i.e., “Duchenne”) smiles in response to goals only when facing one another (Fernández-Dols & Ruiz-Belda, 1997). Even Olympic athletes, whom one would presume could barely contain their joy at reaching the pinnacle of their field, smile during medal ceremonies almost exclusively when actually receiving their gold medal—that is, when interacting with officials and the public—as opposed to non-interactive contexts such as before the ceremony (by themselves in the tunnel, away from TV cameras) or while facing their country’s flag during the playing of the National Anthem (Fernández-Dols & Ruiz-Belda, 1995).

In these cases, displays of happiness are more than simply the expressive aspect of an intensely felt inner emotion or physiological reaction; rather, they are offered to motivate interaction and to establish a particular sort of relationship with others. Studies of audience effects on emotional experience suggest that facial displays and other bodily expressions of emotion are in this way mediated by the extent to which individuals can fully interact in social situations (Chovil, 1991).⁹ Even as adults, it often takes the presence of others to draw an emotion out of us and help us complete it—recall studies of infant emotion-regulation discussed earlier—much the same way that certain cognitive processes (multiplying three digit numbers or remembering complex navigational directions) are only possible when we engage with the right tools within our cognitive niche

⁹ This is not to deny that we never smile or feel happy, for example, when alone. But audience effects are also present in these solitary contexts, which are shaped by an implicit sociality (Fridlund, 1991). Even when alone, we often interact with others via imagination or memory, anticipation or forecast—or we might even take ourselves as an interactant (e.g., muttering under our breath and responding, scolding or blaming ourselves, etc.).

(pen and paper, maps, or GPS units). The physical presence of others acts as a material emotion amplifier.

However, the culturally situated nature of these emotional transactions means that ideational factors open up a type of emotional experience and form of expression unique to this context. They constrain what we experience and how we express it. And these constraints have long-term consequences for emotional development. Think of the intense bond that rooting for the same sports team generates among fans, as well as the extravagant displays of enthusiasm this bond generates—emotional transactions deemed acceptable only within the confines of the sports stadium. Outside of this context, socio-cultural constraints dictate that these displays be viewed with suspicion or annoyance. However, from a very young age, children attending these events see that athletic competitions are (for better or worse) niches within which one can let go of most forms of self-regulation and allow emotions to unfold, collectively, in various extravagantly liberated ways. A crucial part of a child's emotional development—the cultivation of their emotional habits or different ways of “belonging to the world”—is thus to become attuned to how ideational factors establish standards of emotional appropriateness within the material confines of different social niches.¹⁰

One need not look exclusively to athletic contexts, of course. Consider weddings. Wedding ceremonies are an important part of nearly every culture. Most of us attend them regularly from a very young age. We learn early on that weddings are important, memorable events. And we see that they tend to be occasions of intense emotions for all involved. Here, as with the athletic examples, the material features of this niche play a real-time role in scaffolding the performance of various emotions. The wedding context is bursting with emotional technologies designed to facilitate the appropriate feelings: special music and singing; codes of dress and behavior; ritualized aspects of the ceremony and celebration; features of the setting such as decorations, food, and the building or location itself (e.g., a church, temple, or specific natural locale). As with the time-pressured nature of our cognitive transactions, the organization of these material factors similarly help participants work up the appropriate emotions at the right time. For example, “[t]he ornate yet somber setting of the church, the organ music playing, the sequencing of scenes, and the congregation's conventional reactions together serve to orchestrate emotional responses at a more implicit level” (Parkinson et al., 2005, p. 227).

These factors organize attention and regulate emotional experience and expression. But again, their organization embodies ideational factors, too. The specific technologies structuring a wedding in a Catholic church will differ markedly from, say, those making up a Hindu or a secular wedding ceremony. They embody distinct values, norms, and practices governing distinct emotion scripts and display rules (cf. Markus & Kitayama, 1994). Once more, the simple point is that ideational factors of the social niche exert a material impact on long-term emotional development. Learning to negotiate the complex

¹⁰ Again, these patterns of cultural entrainment start at a very young age, as the Zulu mothers example discussed earlier indicates.

emotional dynamics of these niches—that is, learning both to conform to, and *resist*, the material and ideational constraints of the niches we inherit, inhabit, and create—is a crucial aspect of our long-term emotional development.

Conclusion

I have argued that emotions might be productively thought of as distributed processes of social niche construction. Such a perspective, I suggest, helps us to see the extent to which emotions—on both short-term and long-term time scales—emerge from within, and area at times partially constituted by, the dynamics of an agent’s ongoing interaction with evolving social contexts. I summoned multiple sources of empirical research to defend this distributed characterization of emotions and to highlight how material and ideational factors within our niches constrain emotional performance and experience.

Let me be clear that the point of these reflections is not to suggest that an individualist perspective on emotions is never appropriate. Emotions are complex and multidimensional; accordingly, they lend themselves to multiple levels of description. Nothing I’ve said is incompatible with the idea that emotions partially consist in intraindividual states or processes. Without a properly functioning brain and central nervous system, our emotional life would be very poor, indeed. To put this point another way, it is highly plausible that some emotions have representational aspects (e.g., evaluative judgments or appraisals), correspond to specific physiological states of bodily arousal, and generate environmentally-responsive action tendencies. Rather than deny the complex reality of emotions, I have instead tried to offer reasons to be wary of individual-centered approaches that reduce this complex reality to any one component or mechanism. An excessively narrow perspective abstracts emotions away from the larger bodily, social, and interactive contexts in which they are always situated. This simplification can help motivate an individualist perspective on emotions. But emotions are more than any one thing—and they are always situated, and thus have a social face. Peter Hobson puts the point well when he notes that, “[i]n the realm of social engagement, it may be more appropriate to consider emotions as relational states that implicate self-other poles of experience” (Hobson, 2012, p. 174). Thinking of emotions as ongoing transactions with the world—collective instances of social niche construction and maintenance—helps us, I suggest, preserve their multi-dimensional complexity as well as honor the collaborative social practices that are part of their nature.

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