

Emotional Processing in Individual and Social Recalibration

Bryce Huebner & Trip Glazer, Georgetown University

Herman Melville (1853) presents a bleak world in *Bartleby, the Scrivener: A Story of Wall Street*. His narrator, an anonymous Wall Street lawyer, describes his interactions with three scriveners that he employs to copy documents in his small legal office: Nippers, Turkey, and the titular Bartleby. At first, Bartleby seems like an eager employee. But when he falls behind on his work, and the narrator asks him to work harder, Bartleby responds “I would prefer not to.” As the story proceeds, Bartleby declines into deep despair, answering each subsequent directive with a variant of this same phrase. He prefers not vacate the office, and he eventually starves to death in a prison cell, having preferred not to eat.

Late in the story, the narrator considers the possibility that Bartleby had an innate propensity toward hopelessness, which was heightened by working in a dead-letter office. Supposing that Bartleby’s despair was triggered by his unwillingness to meet the demands of the modern workplace, we might interpret his despair as an internal nudge toward social conformity.

Other aspects of the story suggest that Bartleby’s despair was part of a clever, though ultimately unsuccessful Machiavellian bargaining strategy. The narrator is flustered by Bartleby’s hopelessness and feels compelled to accommodate Bartleby’s preferences. When Bartleby prefers not to work, the narrator gets others to do his work for him. When Bartleby prefers not to leave the office upon being fired, the narrator relocates his office. Bartleby meets an unfortunate end; but he is never forced to act against his own preferences.

Both of these interpretations focus on Bartleby’s failure to live up to the demands of his employer. But *Bartleby* may also be a story about Wall Street. Melville was troubled by the increasing class polarization and consolidation of property ownership in Manhattan (Foley 2000). John Jacob Astor, who Melville mentions in the opening lines of *Bartleby*, had purchased much of the property in lower Manhattan; and a public spectacle had emerged around the construction of Trinity Church, a location that plays a prominent role in the story. The Episcopal diocese closed its missions, leaving many people with nowhere to live, while simultaneously providing low-rent leases to a few wealthy New Yorkers—including Astor. Perhaps Astor owned the law office described in *Bartleby*, or perhaps it was a low-rent lease from the Episcopal Church, but in either case it could represent this troubling situation. If so, we might treat Bartleby’s despair as alerting him to problems with his social and material environment. Turkey and Nippers get drunk to cope with their low wages and monotonous jobs; and Bartleby engages in a practice familiar to urban radicals (including those in 19th Century Manhattan): he squats! On this reading, his refrain, “I would prefer not to”, is an act of passive resistance that reveals the absurdity of the narrator’s demands (Deleuze 1998). And the despair that pervades the story is a sign of a broken system, not evidence of a deviant psychology. This doesn’t change Bartleby’s misery. But it can help us to re-conceptualize it.

In this chapter, we explore three social functions of emotion, which parallel these three interpretations of *Bartleby*. We argue that emotions can serve as *commitment devices*, which nudge us toward social conformity and thereby increase the likelihood of ongoing cooperation. We argue that emotions can play a role in *Machiavellian strategies*, which help us get away with norm violations. And we argue that emotions can motivate *social recalibration*, by alerting us to systemic social failures. Then, in the second half of the chapter, we argue that emotions guide behavior in all three ways by attuning us to our social environment through a process of error-driven learning. We suggest that their most basic social function is to reveal tensions between individuals and social norms, and that because they are socially scaffolded, they leave open multiple strategies for resolving such tensions. Specifically, we argue that differences in conceptualization, as well as differences in circumstance, can generate

emotions that nudge us toward cooperation, lead us to adopt Machiavellian strategies, or motivate us to engage in forms of social recalibration. Bartleby's despair signaled a mismatch between his internal dispositions and the expectations of Wall Street, and any of these three strategies could have moderated his misery.

1. The Social Functions of Emotions

For the purposes of this chapter, we adopt a *social functionalist* perspective on emotion (Keltner & Haidt 1999; Keltner & Haidt 2001; Keltner, Haidt, & Shiota 2006). We treat emotions as coordinated changes in physiology, cognition, and behavior, which evolved because they tend to enhance the fitness of organisms (Nesse 1990). And while some emotions evolved to serve non-social functions, we focus on those that help organisms navigate the distinctive challenges of social living (Keltner & Haidt 2001)—*problems of reproduction* (e.g. finding and keeping mates, rearing offspring), *problems of cooperation* (e.g. rewarding altruism, punishing exploitation), and *problems of group organization* (e.g. signaling, conferring, and withdrawing social statuses).

We also adopt an *informational* perspective, according to which emotions often provide those who experience them with situation-relevant information. They attune us to aspects of the world that demand our immediate attention, and they keep us apprised of our progress toward reaching our goals (Fridja 1988, 354; Clore, Gasper & Garvin 2001; Schwarz & Clore 2007). Emotions also provide bystanders with situation-relevant information through their outward expressions. The *experience* of guilt informs an individual that they have violated a norm, prompting reform, while the individual who *expresses* of guilt thereby informs others that they are troubled by this violation, which may lead them to forgive the wrongdoing. Consequently, we examine both the intrapersonal and interpersonal functions of emotions, focusing on the flow of action-guiding information within and between social actors (Keltner & Haidt 1999).

In this first section, we review three social functions of emotions: they can function as *commitment devices*, which motivate cooperation and other pro-social behavior (Frank 1988; Greene 2013; Sterelny 2012); they can play a role in *Machiavellian strategies*, which help us to get away with norm-violations or to regain the trust of others if we are caught (Griffiths 2002; Griffiths & Scarantino 2009); and they can serve as tools for *social recalibration*, which motivate us to reform problematic social arrangements (Scheman 1980; Nietzsche 1998; Nussbaum 2013). Although these functions appear to be heterogeneous, we argue in the sequel that they are variations on a single theme. In each case, emotions convey information about conformity or nonconformity with social norms, and motivates adaptive responses. The functions differ only with regard to the target of recalibration: individuals, bystanders, and society at large.

1.1. Emotions as Commitment Devices

Individuals can often benefit more by working together than they would by working alone, making cooperation rational. But as long as others are already cooperating, individuals can benefit the most by cheating, or by enjoying the benefits of cooperation without putting in their fair share of the work. Animals often find ways to take advantage of cooperation, cheating and defecting when they can get away with it, generating an anti-cooperative arms race (Dawkins 1976). Withholding cooperation thus becomes a dominant social strategy, making it unreasonable to trust others when the going gets tough.

A *precommitment* to cooperation can solve this problem (Schelling 1966). If both parties can lock themselves into cooperation, such that defection carries a higher cost, then cooperation becomes the dominant strategy. And Robert Frank (1988) argues that emotions like guilt and indignation may

have evolved in early hominin societies as precommitment devices, to prevent cheats and shirks from taking advantage of others. He contends that emotions can provide us with the motivation to follow through on our commitments when defection would be rationally preferable; and he suggests that emotional expressions are costly signals that allow us to garner trust from others. Guilt generates a disincentive against cheating, and since we have good reason to believe others will feel guilty when they defect, expressions of guilt can bolster trust in social situations. Indignation provides an incentive to punish wrongdoing, even when doing so seems rash. Since bullies will thrive when they aren't punished, social anger may have evolved to motivate punishment in ways that increase cooperation and conformity in the long run (Boehm 2012). Frank even suggests that love may have evolved to stabilize long-term partnerships. While it would be imprudent to stay with someone who would leave whenever a better option came along, he argues that love increases the likelihood that a partner will suffer if they lose you. Since loving partners tend to remain faithful, it weakens the threat of defection, making long-term relationships a more worthwhile investment.

Joshua Greene (2013) develops a similar suggestion, though his claims are tied more closely to research on psychological mechanisms. Like Frank, he holds that some emotions evolved as solutions to commitment problems that arise in small groups, and he holds that these emotions generate reflexive action tendencies that foster cooperation and conformity within groups. On his approach, these emotions are “designed to promote cooperation among otherwise selfish individuals” (Greene 2013, 61-62). But unlike Frank, Greene acknowledges that these reactions are attuned to the norms of small group life, and they can generate disagreements between groups, as well as disagreements over how a group should be organized. Greene contends that we must rely on reflective and rational processes when commitment problems arise in such contexts—as they have for much of human history. This is a core commitment of this commonly held view of emotion: our emotions come up short when we face problematic social situations; so we must plan, deliberate, discuss, and decide how to move forward when conflicts arise between groups, and when we want to improve the structures of the groups that we inhabit. More reflective processes depend on mechanisms that are slow, computationally costly, and often open to ideological distortion. So they are only useful where we have the time and resources to think clearly—that is, when we are not dominated by emotion.

We should accept the claim that commitment problems played a significant role in the social lives of early hominins, and we bear the mark of these evolutionary pressures. But it's hard to see why emotions should continue to play precisely the same roles that they played in the Pleistocene. As Kim Sterelny (2014) argues, while guilt and indignation may have been necessary to eliminate cheats and bullies at some points in our evolutionary history, we inhabit a world that makes cooperation easier and defection more costly. So there is reason to believe that many emotions may serve other purposes (Rozin, Haidt, & McCauley 2009; Griffiths 2002). This is not to deny that we experience emotions “that are motivationally powerful, emotions that are triggered by perceived violations of trust and fairness, emotions whose motivational saliences are relatively insensitive to utilitarian calculation, emotions whose occurrence are easily recognized and difficult to fake” (Sterelny 2012, 109). The changes in our social world over the past 75,000 years have not made norm transgressions less aversive or norm conformity less satisfying, and we are still motivated to punish norm transgressions in our current evolutionary niche.

In general, we are happier to follow the rules than to break them (Klucharev et al 2009, 2011; Milgram & Sabini 1978; Prinz 2006), and emotions play an important role in amplifying the salience of norm transgressions and enhancing the benefits of norm conformity. So even if they are no longer necessary to solve commitment problems, it is important to remember that emotional lessons are learned more easily. Guilt can provide us with a painful reminder that we ought not to cheat. Gratitude can provide us with a pleasurable reminder that we should cooperate. And despair can motivate us to re-think our relationship to the social world. Where things are going well, we tend to increase social

effort; but dampened motivation becomes adaptive when it helps to “inhibit dangerous or wasteful actions in situations characterized by committed pursuit of an unreachable goal, temptations to challenge authority, insufficient internal reserves to allow action without damage, or lack of a viable life strategy” (Nesse 2005, 18). Put differently, despair may arise in response to noncompliance, make our actions salient and painful, and provide us with a nudge back toward social conformity.

1.2. Emotions as Machiavellian Strategies

Suppose that some emotions evolved as solutions to commitment problems and continue to enhance the salience of norm conformity. It might seem clear that their social function is to lead us to accept the norms that govern our society or our immediate social group. Indeed, this seems to be the suggestion advanced by Frank and Greene, though in slightly different ways. Emotional alarm bells alert us to the deviance of particular behaviors, and motivate re-alignment with an existing normative order. This claim should be familiar to philosophers, who often note that reactive attitudes play a critical role in structuring the normative domain (Strawson 1962; Watson 2008). And we concede that emotions often facilitate living and acting together, in ways that allow us to take advantage of the significant benefits of group life. But this isn’t the end of the story. While emotions often lead us toward conformity, they do not universally lead to cooperation (Sterelny 2012). As Paul Griffiths (2002) and Andrea Scarantino (Griffiths & Scarantino 2009) argue, this approach to the social function of emotions needs to be amended.

Building on the work of Jean-Paul Sartre (1939), Griffiths and Scarantino argue that emotions often serve a Machiavellian function. Instead of fostering a drive toward conformity and cooperation, they sometimes allow us to juke the system for our own advantage. Even granting that some emotions initially evolved to weed out cheats and shirks, emotions can also help us become better cheats and more sophisticated shirks, especially once a set of cooperative practices is in place. In our current evolutionary context, where most people are cooperative, individuals can sometimes flourish by expressing emotions that allow them to gain fitness benefits they would not otherwise have access to. And this introduces a more local variant of anti-cooperative arms race that is common among social animals.

Within a cooperative enterprise, expressions of guilt might secure forgiveness from others when we are caught transgressing social norms. As Frank notes, if someone wrongs you but appears to be sorry, it is easier to forgive them and to cooperate with them in the future. But if enough expressions of guilt have been followed by cooperation in the past, and if the controlled expression of guilt isn’t too costly to cultivate, some people might be able to use this expression to secure re-acceptance into a collaborative community, thereby continuing to garner the benefits of social life. This is not to deny that guilt may have served a more cooperative role in the past; but in a world designed to foster cooperation, expressions of guilt may serve as components of a Machiavellian strategy for improved cheating and shirking (Griffiths 2002). Similarly, *pace* Frank, Griffiths suggests that romantic love can help people get away with adultery in committed long-term relationships. Having been caught in an adulterous act, it may be possible to plea (with varying levels of success), “I am so sorry! I was overcome by emotion! I still love you!” And where this works, it may allow for an increase in reproductive fitness without a corresponding loss.

So perhaps emotions do not provide unambiguous guidance in line with dominant social norms, and perhaps they have socially significant functions that outstrip their role as precommitment strategies. Some emotions may alert us to possibilities for improving our own situation, undergirding forms of Machiavellian intelligence. And their expression might serve as manipulative signals, which lead others to believe that we are more cooperative than we really are. To do this, emotions must still alert us to our deviations from social norms, but they must do so in a way that doesn’t directly motivate

conformity with an existing normative order. The tension between individual dispositions and social expectations is still present, but the individual copes with this tension by prompting others of recalibrate their perceptions, manipulating them into thinking that the tension has been resolved.

1.3. Emotions as Motivation for Social Recalibration

Thus far, we have suggested that emotions can sometimes sustain cooperation and that they can sometimes promote manipulation. But emotions also seem to have another important social function. Philosophers have often noted that emotions can help us identify social arrangements that hinder individual flourishing, and motivate us to reform those arrangements. However, this suggestion has not yet been explored from a social functionalist perspective. Consider two influential accounts of emotions that play such a role:

- In the *Genealogy of Morality*, Nietzsche (1887/1998) argues that feelings of *ressentiment* played an important role in the emergence of Judeo-Christian morality. He claims that people resented their mistreatment at the hands of more powerful leaders; but instead of motivating them to punish those leaders, using resources available within the existing normative order (which couldn't have been accomplished successfully), their resentment motivated them to impose a new normative order that demonized the strong and valorized the weak. By reforming the norms of their society, they secured a novel form of flourishing. Crucially, for the weak, resentment motivated a creative imposition of a novel normative order, and not a re-alignment with an existing normative order.
- In “Anger and the Politics of Naming,” Naomi Scheman (1980) describes Alice’s experience of strong negative emotions with regard to her role as a housewife. She believes that she feels guilty, and takes this to signal that she needs to accept and embrace her social role. But after attending a feminist consciousness-raising group, Alice learns to perceive her emotion as anger. She discovers that she was angry all along, because she was relegated to a subordinate social role. By learning to interpret her experience as anger, she came to see that her emotion wasn’t nudging her back into her designated social role, but motivating her to protest it. Her emotion revealed a problem with existing social expectations, not a problem with her own psychology.

This genealogical account of morality and feminist account of social injustice suggest that emotions can sometimes motivate forms of social resistance and social imagination, instead of just motivating social conformity or individual resistance. But how is this possible?

On the one hand, we might suppose that some emotions evolved to motivate social (and not just individual) recalibration, and that they reveal situations where social disruptions are likely to be beneficial to individual interests. But there are few similarities between situations where it would be reasonable to resist an existing normative order. So it is unlikely that such capacities would have evolved and persisted in social animals. As Greene argues, socially relevant emotions do not seem to play the psychological roles that would be required for prospective reasoning and planning for the future (Greene 2012). On the other hand, complex normative judgments could guide forms of political resistance; but they are unlikely to be targets of biological or social evolution. So while it is clear that evolved emotional mechanisms could play an important role in the conservative and cooperative aspects of human cognition, it is substantially less clear how they play a role in the (perhaps rare) cases where people attempt to reconfigure their environments to better suit their needs and interests.

Nonetheless, some emotions do seem to motivate resistance. Our aim in Section 2 is to explain how this can be the case, and we do this by focusing on the role of learning in grounding the social function of emotions.

2. Re-conceptualizing the Social Functions of Emotion

So far, we have assumed that some emotions evolved as capacities for regulating social life, that emotions provide situation-relevant information about our world, and that emotions can evoke socially significant action tendencies—approaching, fleeing and excluding, attacking, and ignoring (Fischer & Van Kleef 2010, 210). But notice that none of these assumptions entails that emotions must specify determinate responses to particular social situations. Even if emotions alert us to tensions between our current actions and social expectations, and even if they motivate us to resolve these tensions, they may not specify precise or situation-invariant behavioral responses. Human cognition is flexible, and our affective capacities play a critical role in our ability to adapt to different social and ecological niches. To skillfully cope with environments that we pass through, we must learn what possibilities those environments afford. And this process relies on the dynamic integration of affectively-valenced and action-guiding neural processes (Barrett 2014, 292). In the remainder of this chapter, we argue that variations in our social and material situation can evoke emotions that will motivate individuals to re-establish cooperation, to adopt Machiavellian strategies, or to strive for social change. But to understand how emotions can serve all of these functions, we need to dig deeper into the nature of emotional learning.

It is common to situate discussions of emotion within a particular theory, such as Basic Emotions Theory, Appraisal Theory, or Psychological Constructivism. But our focus on learning suggests a different approach. We begin from a well-supported theory of the role of learning in human cognition. The details emerge below, but we propose to treat the brain as a hierarchically-organized predictive machine (Clark 2015; Colombo this volume), and we argue that this view is compatible with an account of biological preparedness (Cummins & Cummins 1999; Seligman 1971) that provides a plausible foundation for emotional processing. We sometimes appeal to research that has been presented in support of a particular theory of emotion; but we don't intend to tie our own view to any of these horses. For example, we follow Psychological Constructivists in arguing that while approach and avoidance motivations are a typical part of our evolutionary inheritance, emotions with precise *social content* require the integration of sensory input, background beliefs, and biologically grounded expectations with self-referential information to yield a unified representation of what the world affords (cf., Sellars 1978; Clark 2015). But we also acknowledge that sophisticated defenses of Basic Emotions and Appraisal Theories can accommodate the learning and flexibility we are most interested in (Scarantino & Griffiths 2011; Scarantino 2012; 2014). Similarly, our discussion of the affordances generated by emotional expressions draws on work carried out by Appraisal Theorists (e.g. Van Kleef 2009; Van Kleef et al. 2010). But we believe these claims are compatible with Psychological Constructivism theories of emotion. Over the course of the next two sections, we hope to show that our approach is consistent with what we know about evolution, and about the operation of cognitive systems more broadly. And we how to show that it is not implausible to draw all of these resources together to yield an integrated approach to the social functions of emotions.

2.1. Emotions as Forms of Social Learning

Over the past two decades, research across the cognitive sciences has converged on the hypothesis that the brain is a predictive machine, which integrates the representations produced by numerous error-driven learning systems, which operate in parallel (Clark 2015; Colombo this volume;

Howhy 2013; Rescorla 1988). Earlier systems process more precise and concrete sources of information, while later systems process information that is more abstract and categorical. Although earlier systems provide inputs to later systems, this network of processes does not construct a representation of the world through a feed-forward process. Instead, each system attempts to predict what the incoming data will be, given its model of the world; each system generates an error-signal when these predictions are mistaken; and each system revises its future predictions to minimize such errors. Subjective experience, including emotional experience, is produced by a recurrent cascade of these 'top-down' predictions, based on what each system 'knows' about the world and about the current situation (Dennett 2015; Clark 2015).

There is an intriguing twist on this story in the domain of affective processing. Like all other animals, we are biologically prepared to respond to motivationally salient features of the world. Pavlovian capacities allow us to rapidly learn which things we should approach and which we should avoid. Rats rapidly acquire a taste aversion after exposure to a mildly toxic substance in sweetened water; but it takes a long time for them to learn to avoid sweetened water if they are reinforced with moderate electric shocks (Garcia & Koelling 1966). Likewise, people rapidly acquire aversions to biologically significant threats (e.g., predators, unfamiliar places, and out-group members), but sustained reinforcement is necessary for them to learn that an arbitrary cue indicates danger (Seligman & Hager 1972). Most humans also attune to the distinctive challenges of group life, in part because conformity feels rewarding while deviance feels like an error to be corrected (Milgram & Sabini 1978; Milgram et al 1986). Moreover, reflexive inclinations to behave pro-socially are species-typical (Zaki & Mitchell 2013); and the suffering of others is motivationally significant (Crockett et al 2014). Finally, humans possess evolved tendencies to punish cheats and bullies, even at a cost to themselves, and even when it is unlikely that they will interact with a particular partner again (Bowles & Gintis 2011; Henrich et al. 2005; Sterelny 2014). These forms of biological preparedness provide the shared, and basic foundation upon which all affective learning takes place.

This being the case, the social functionalist is right to think that our affective responses have been shaped by biological and social evolution. But these basic affective responses (specified in terms of particular approach and avoid motivations, as well as levels of arousal) do not exhaust our emotional lives. While these forms of core affect constrain the range of possible affective states we can come to acquire, and while biological preparedness does make it easier for us to learn about what the world affords, each of these affective responses plays multiple roles in many emotional states. In a typical situation, multiple expectations will be computed in parallel to guide situation-relevant behavior. And as predictive approaches to cognition suggest, even high-level conceptual information can play a role in structuring how affectively significant information shows up to self-conscious agents. So, for affective inclinations to guide socially-sensitive forms of behavior, three things must happen:

1. Some form of valuational learning must occur, which shapes our initial drives in accordance with the social phenomena we have frequently encountered. Like all mammals, we possess a network of evaluative systems that allow us to achieve this kind of affective attunement (Huebner 2012). Dopaminergic neurons in the basal ganglia generate predictions about the value and distribution of primary rewards, updating these predictions when rewards are better or worse than expected (Schultz, 1998, 2010). Over time, if the value and distribution of rewards remains fairly constant, such predictions converge on accurate representations of the evaluative landscape. But since the world is complex and unpredictable, brains must also track fluctuations in the value of rewards, monitor changes in the probability of gains and losses, and adjust subjective estimates of risk and uncertainty (Montague et al 2012; Adolphs 2010); and human brains attune us to local norms, treating conformity as rewarding and deviance as an error to be corrected (Klucharev et al 2009, 2011). All of this occurs with little effort; and

in each case, we rely on error-driven learning systems, whose content is made more precise and more accurate by the top-down cascade of expectations that guides goal-directed behavior.

2. Just as importantly, emotional processing must be action-oriented, and the information encoded by evaluative systems must be packaged to guide socially-sensitive forms of behavior (Cushman 2013). But crucially, the link between evaluative learning and behavior does not involve an additional step in processing. As we pass through different environments, we construct evaluative maps that allow us to place particular actions in evaluative contexts. Connections between systems engaged in action-planning, and systems dedicated to evaluative learning, allow us to generate situation-relevant action-outcome representations.
3. Top-level expectations, and the downward cascade of expectations they produce, must be able to resolve ambiguities in the data that are present at lower-levels of processing. In Scheman's example, for instance, Alice reflexively processes information relevant to her social position and evaluative state, but this information underdetermines what her current emotional state is. For her experience to crystallize as an emotion, she must categorize her situation as one that affords guilt or one that affords anger. This allows her to resolve the ambiguity that is inherent in her experience (but there is nothing that requires resolving it in one way rather than another). Likewise, the Machiavellian strategists must represent their social situation as one where cooperation is expected, and adjust their explicit expectations to experience their emotional reaction as evidence that a situation affords the opportunity to juke the system. None of this requires robust self-consciousness, and much of the relevant processing occurs sub-personally. Self-consciousness can play a critical role in top-level processing, as it does after consciousness raising. But at minimum, each adjustment requires action-oriented processing that places an agent in social space, and informs them about what the world affords.

Drawing this all together, we should see the brain as a system that is continually producing representations of what we did in similar situations, how it acted, and how we felt about the possibilities that the world affords. This information plays a critical role in helping us guess what will happen next, not just in the world, but in our thoughts, feelings, and perceptions. While it is easy to assume that we first see and then believe, according to this picture we see what we expect; and what we expect is based largely on what we feel (Barrett & Simmons 2015). To make this point concrete, suppose a person is walking through a neighborhood in Southeast DC. They become more aware of their surroundings and more alert, because the last time they were there, someone told them that it was a dangerous neighborhood. Racialized expectations about danger are also brought on-line, as they have strong associations between race and violence. So as they walk, they reflexively generate expectations about the actions they will have to take in the near future. As a result, their heart rate and breathing quicken, and motor-systems are prepared for fighting-or-fleeing. In this process, radicalized expectations and mistaken beliefs about violent crimes play a critical role in the production of action-tendencies, as well as the initiation of search strategies that are guided by these expectations. Because this person expects to see a gun, even a small amount of gun-consistent information (embodied in a cellphone) can resonate with these action-oriented motivations; as a result, affectively valenced perceptions might affect perception, making it more likely that this person will *see* a cell-phone as a gun, and react fearfully (Barrett 2015).

In this case, expectations impose structure on experience at multiple levels of processing: the awareness of potential threats is increased, negative valence is generated, the accessibility of associations between race and violence is enhanced, and the construction of action-plans for addressing potential threats is triggered (cf., Wilson-Mendenhall et al 2011). In this context, embodied

expectations that evoke feelings of tension are also rapidly recoded as experiences of fear, which generate the further motivations and expectations that collectively guide ongoing behavior. There is a great deal of complexity to this story. But the most salient thing to notice is that the structure of incoming data will always underdetermine the possibilities that the world affords in this situation. Until expectations are imposed, and until fear-based conceptualizations are triggered, visual information cannot reveal a threat (Black males with cell phones are not dangerous).

We believe that most real-world situations are affectively ambiguous in a similar way, even if the social relevance of this fact is not always as obvious. Ambiguities in our current state, as well as ambiguities in the social structures of our world are resolved in accordance with our expectations; and this shifts our perceptions of the world. Once ambiguities are resolved, approach and avoidance-responses that are generated by Pavlovian and model-free learning systems can guide behavior.¹ But situated emotional experiences depend on a complex network of predictive processes. People rapidly compute evaluative representations of their current situation (LeDoux 2007; Montague 2006). But conceptual knowledge, scripts, and schemata also play a significant role in the production of emotional experience. Put differently, emotional representations are computed on-the-fly, integrating internal and external sources of information in ways that are sensitive to current task demands as well as long-term goals. As a result, classes of emotions cluster as family-resemblance kinds, bound together with emotional labels but varying quite within these classes (Barrett 2014). Presumably, this is why neuroimaging results routinely reveal that capacities as diverse as representing bodily states, tracking the salience of events, remembering past situations, shifting attention, perceiving, and conceptualizing are operative in the production of emotional experiences (Wilson-Mendenhall et al 2011, 2013). And this is probably the reason why attempts to localize emotional processing in specific neural circuits, and to articulate boundaries around the experience of particular emotional states, routinely fail to reveal anything like stable natural kinds (Barrett, Wilson-Mendenhall, & Barsalou 2015; Griffiths 1997; Lindquist et al 2012).

To be clear, we do not intend to deny that recognizing potential threats is evolutionarily advantageous. Nor do we intend to deny that evolved responses to threats (e.g., fleeing, fighting, and freezing) might arise reflexively for some evolutionarily stable phenomena. But ‘fear’, as a high-level representation that guides behavior in a diverse range of situations has a variety of looks and feels, suggesting that may not be a unified state:

When you fear a flying cockroach, you might grab a magazine and swat it; when you fear disappointing a loved one, you might think of other ways to make them feel good about you; when you fear a mysterious noise late at night, you might freeze and listen; when you fear giving a presentation, you might ruminate about the audience reactions or over-prepare; when you fear getting a flu shot, you might cringe anticipating the pain; when you fear hurting a friend’s feelings, you might tell a white lie. Sometimes you will approach in fear, and sometimes you will avoid. Sometimes your heart rate will go up, and sometimes it will go down. (Wilson-Mendenhall et al 2011, 1108)

We must learn how to use our fear responses in ways that are sensitive to the demands of our current situation. And part of what it means to be a successful emotional agent is to be able to adapt our reflexive responses to suit our current situation.

¹ The upshot is that stored associations as well as situated expectations must be changed to address the moral problem here. This means changing the world we live in to suit our values, not just changing our morally problematic on-line coping strategies. For an extended discussion of this issue, see Huebner (2016).

Like fear, guilt looks and feels differently when it is a response to forgetting a friend's birthday, forgetting to respond to an email, or falling behind on one's research commitments. Sometimes guilt requires demonstrating that you are sorry and asking for forgiveness; sometimes it requires knuckling down, and getting to work on something you are behind schedule on. Similarly, experiences of love vary widely across the course of a relationship, and they are expressed differently depending on what has happened recently. Sometimes demonstrating your love requires approaching someone, but sometimes it requires giving them space. Sometimes it feels good (when things are going well), but sometimes it feels awful. Finally, as Scheman's story of Alice suggests, strong negative affect in a social situation can help to sustain conceptualizations that transform an avoidance motivation like guilt into a transformative motivation like indignation. How affect is experienced, and how it is used in online cognition often depends on what conceptualizations are available, given a person's learning history and given their ideological perspective. And this is why emotions that play a critical role in social transactions require a dynamic sensitivity to our current situation, and it is to these social factors that we now turn.

2.2. Emotions as Social Transactions

Socially relevant decisions must often be made even when we are uncertain about the beliefs, motivations, and interests of our social partners (Van Kleef et al 2010). And we often rely on emotional cues to reduce this uncertainty (Manstead & Fischer 2001; Parkinson, Fischer, & Manstead 2005; Griffiths & Scarantino 2009). But how we use the interpersonal information embodied in emotional expressions depends on our expectations regarding the current situation: in contexts we judge to be cooperative, we often treat emotional information as evidence about the world—this leads to emotional contagion, responses consistent with emotions expressed by our social partners, and attempts at social mood management; in contexts we judge to be competitive, by contrast, we are more likely to use emotional information strategically, as it provides evidence about how our social partner feels, what is important to them, and actions they are likely to take in the near future—emotional contagion appears to be reduced in such contexts, and it seems to play a less significant role in social decisions (Van Kleef 2009; Van Kleef et al 2010, 49). The immediate affective responses triggered by the uptake of emotional information can be captured by four kinds of action tendencies:

- The motivation to move toward or to approach a social partner;
- The motivation to move away from or to excluding a social partner;
- The motivation to move against or to attack a social partner; and,
- The motivation not to move, to ignore, or to hide from a social partner.

As Van Kleef and his colleagues (2010) argue, inferential processes play a significant role in the uptake of emotional information in competitive situations and in situations where we have epistemic motivation to deliberate strategically. By contrast, the action tendencies and appraisal patterns that are commonly taken to characterize emotional content take precedence in cooperative contexts, where the need for strategic reasoning may be lower.

Positive affect typically leads us to consider a wider range of factors in evaluating a situation (Fredricksen and Branigan 2005, 315), to increase our willingness to adopt a novel strategy (Isen 2001), and to increase our willingness to revise initial judgments in light of new information (Ashby et al. 1999; Estrada et al. 1997; Isen et al. 1991). In cooperative contexts, feelings of happiness also lead us to *move toward* social partners in ways that foster collaboration, promoting trust, liking, and cooperation (Van Kleef et al 2010, 65), and evoking a drive toward affiliation, and a perception of our world as

filled with opportunity (Van Kleef et al 2010, 59). In competitive contexts, however, expressions of happiness provide us with evidence that we are being duped or outdone, and this can increase competition. More intriguingly, where such expressions signal that our social partners are doing well, we sometimes assume that they will be more likely to make concessions; and this can evoke a Machiavellian search for better ways to exploit our opponent's weaknesses (Van Kleef et al 2010, 60). All told, the expression of positive affect in a competitive context appears to trigger a motivation to *move against* social partners, increasing competitive motivations and decreasing cooperative ones (Van Kleef et al 2010, 72).

A similar set of phenomena arise in the case of anger. In cooperative contexts, anger tends to increase vigilance, producing antisocial or aggressive reactions that can motivate us to disengage, to refuse to make concessions, and to undermine cooperation (Van Kleef et al 2010, 60). The uptake of anger is different in competitive contexts, at least where the angry party is perceived as having a higher or equal social status to us. Here, expressions of anger lead us to make concessions, in hopes of minimizing the risk of more serious forms of punishment. Paradoxically, anger increases the willingness to cooperate within a competitive context. But people are less willing to re-engage with an angry social partner in the future—while they may defer to an angry partner now, they prefer, in the long run, to move away from people who express anger (Van Kleef et al 2010, 75).

Expressions of sadness and distress convey the information that others need aid or support, and this can sometimes yield an increase in cooperation (Van Kleef et al 2010, 68). This isn't particularly surprising, as even young children engage in helping behavior when someone expresses sadness or distress. But in competitive contexts, expressions of sadness or distress are often ignored, unless there is a high degree of epistemic motivation, and a robust belief that ignoring their sadness will lead to more deleterious outcomes. Put bluntly, signals of supplication trigger a desire *not to move* in competitive contexts.

Finally, appeasement emotions like guilt, regret, and embarrassment often signal a willingness to make amends or engage in ameliorative behavior, and a desire to resume conformity with social norms (Van Kleef et al 2010, 61). The tendency toward appeasement can foster re-engagement, in cooperative contexts, and this can reduce competitive tendencies. But in competitive settings these emotions can invite increased competition and drive us to search for ways to exploit a social partner's weaknesses: since "such emotions signal that the transgressor is willing to compensate, it becomes less necessary to make concessions oneself; instead, one can wait for the other to give in and exploit the situation to further one's own goals" (Van Kleef 2010, 61)

The upshot of this discussion is that our affective responses to others are often shaped by our own appraisal of a situation, and by social information about what kind of situation we are in. In cooperative contexts, expressions of happiness and sadness both increase the likelihood of cooperation, and this is true in spite of the fact that these emotions have different affective valences. In competitive contexts, the interpersonal effects of emotional information are primarily strategic. The key insight, then, is that the structure of our current social situation plays a significant role in the social uptake of emotion:

People become more competitive when their counterpart shows signs of happiness because they infer that the other is undemanding and ready to concede more. People become more cooperative when faced with expressions of anger because they infer that the other has ambitious goals and is a tough player. People exploit their counterpart when s/he shows guilt or regret, because such appeasement emotions are taken as a sign that the other feels s/he has already claimed too much and is willing to make concessions (Van Kleef et al 2010, 78).

So what are we to make of these facts as regards the possibilities of using emotions as interpersonal signals that can foster conformity, the adoption of Machiavellian strategies, or signal a need to revise the operative social norms?

In cooperative contexts, we can use the emotions expressed by others as evidence about how to adjust our own behavior. Seeing a partner as happy leads us to invest more effort in preserving our ongoing cooperative activity; seeing our partner as sad leads us to offer help, to rebuild a cooperative setting; seeing our partner as angry leads us to abandon our current actions, in hopes of preserving cooperation; and seeing our partner as guilty or embarrassed leads us to work toward rebuilding a foundation of trust and cooperation. Put much too simply, in cooperative situations, social emotions tend to nudge us toward further cooperation.

Inferential processes and strategic reasoning seem to play a more significant role in the uptake of social emotions in competitive situations (Van Kleef et al. 2010), and this allows us to treat social emotions as interpersonal signals for individual or social recalibration. But the way we use them will depend on our conceptualization of our circumstance and our available options. Seeing our competitors as happy can trigger a motivation to *move against* them, but whether we do so individually or socially will depend on whether we have a social group that can help us to overturn the problematic normative order that their illicit happiness represents. Similarly, while seeing our social opponents as angry can often lead us to make concessions, in hopes of minimizing the risk of more serious forms of punishment, it need not do so. Seeing a social competitor as unjustifiably angry can also lead us to work together to undercut her position of power, serve to clarify the absurdity of their demands. Of course, we tend to perceive the people we interact with as cooperative partners, but as feminists, critical race theorists, and disability theorists have long argued, learning to see the ways that others are exploiting or manipulating us can transform the ways that we interpret their behavior.

With this view of social interaction in hand, we now return to our claims about emotional learning to explain how our perception of a social situation as cooperative or competitive can help to transform the ways that we interpret the interpersonal signals that social emotions convey, and then act in light of this information to re-establish cooperation, to dupe competitive social partners, or strive to produce another world.

2.3 From Feeling to Acting

Drawing together insights of the previous two sections, we can summarize our primary claim as follows. Emotions reveal—both intra- and interpersonally—the existence of a tension between an individual and their social surroundings. They do this because of conflicts that arise at multiple levels of computational hierarchy. We reflexively attune to affectively salient patterns that we encounter frequently. And conflicts between our learned expectations and incoming flows of socially salient information tend to trigger an affective response. In general, the initial recruitment of affect runs by way of attuned and elaborated forms of response, which have been built upon forms of biological preparedness. But for these approach and avoidance motivations to become emotions, with precise social content, and precise tendencies to move toward, away from, or against a social partner, these states must be integrated with sensory input, background beliefs, and self-referential information to yield a unified representation of what the current situation affords. In many cases, social information, filtered through our construal of a situation as competitive or cooperative, exerts an important pressure on the representation that we construct. As a result, what one does with the information embedded in socially situated error-signal often depends on how they conceptualize their place in society, or within a smaller social group. Put differently, emotions call attention to “the importance of events to relevant concerns, help prioritize goals, and generate a state of action readiness that prepares the individual to respond to changes in the environment” (Van Kleef et al 2010, 47). And since

conceptual representations often depend on ongoing patterns of social engagement, the interpersonal information an emotion provides can sometimes be integrated into our conceptualization of an affective experience, yielding downstream effects the emotions we experience. This is the critical upshot of the data on social transactions that we addressed in the previous section.

In many cases, emotions that signal a mismatch between our current state and our current situation can motivate a person to uphold the prevailing norms in their society; and where this occurs, it is often because the available conceptual information, as well as the broader background of cooperative interactions, suggest that this is the most plausible behavioral response to the current situation. But at other times, such emotions can motivate a person to take advantage of a breakdown in cooperative norms; in part because they may perceive their current situation as competitive, or as a situation where a sucker can be hoodwinked. In neither case does the conceptual information need to be represented explicitly or consciously, and the precise structure of a person's conceptualization of their emotion will always depend on contingent facts about their social history. But expecting a situation to be competitive, and treating it as a situation where a benefit can be gained by defecting from a cooperative enterprise, can shift the import of the signal that is conveyed by an affective response to a situation. Finally, and to our minds most importantly, emotions that signal a mismatch between a person's current state and their social situation can sometimes be interpreted as evidence of the necessity to revise the operative social norms, especially where a novel conceptual framework can open up new possibilities for engagement with the world that were previously unnoticed—from the outside by way of consciousness raising, from the inside by way of deliberative reasoning, or through creative and shared explorations of novel conceptual possibilities.

Importantly, no particular response is built into the structure of an emotion. Evolutionary forces have provided us with affective responses that are objectless and directionless; but “when affect is conceptualized and labeled with emotional knowledge, it becomes associated with an object in a specific situation, providing the experiencer with information about how best to act in that specific context” (Kashdan et al 2015, 12). This is a deeply Darwinian point (though not one that Darwin himself would have made). The experience of an affective state always underdetermines the conceptualization of an emotion, as well as how an agent should take up the information embodied in the effective response. From this perspective, socially-salient emotions are adaptive not because they convey a fixed kind of information, but because they help to generate flexible strategies for remaining attuned to a fast moving and highly fluctuating social environment. Emotions couldn't do this if they didn't allow us to incorporate conceptual information about our current situation into our ongoing, affectively valenced responses to the world that we experience. In light of this fact, we contend that it is a mistake to think that the information conveyed by an emotion is always fixed by some facts about our evolutionary history—and this remains true even on the assumption that any plausible theory of emotion must be bound to an evolutionary situation.

But why does any of this matter? We contend that the information conveyed by an emotion is the result of a complex set of interactions between evolved affect responses, conceptual representations, and information embodied in the material structure of the world we inhabit. As a result, we believe that the meaning of an emotion can shift as a result of changes at many different points in this distributed informational system. Bottom-up signals can evoke discomfort, leading us to retreat from novel possibilities, and to conceptualize our retreat as warranted by the current situation. And as a result of the dynamic feedback relations between our immediate responses and our construal of a situation, we can come to experience emotions that nudge us back toward social conformity. By contrast, the perception of novel possibilities can reshape our immediate experience of aversive affect, sometimes in ways that are highly productive. In this regard, we think that Scheman is right to think that we can re-conceptualize our emotions, taking ourselves to feel guilty because we have failed to live up with a norm, or taking ourselves to have been angry because the norm was

unjust. But it would be a mistake to think that there is one correct conceptualization to an affective signal. Instead, we suggest that different conceptualizations of affective responses reveal different possibilities for socially significant action.

By conceptually labeling our affective responses, we can exploit information that is present in what we feel, and do so in a way that convey information about the current situation and possible courses of action (Barrett 2012). Emotional states that are labeled become easier for us to regulate, especially where they pull us away from our long-term goals, and where they must be incorporated into our ongoing understanding of the world (Kashdan et al 2015). In her recent book, *Political Emotions*, Martha Nussbaum (2014) argues that while anger is often the first and strongest response we have to unjust social arrangements, love and compassion are sometimes better suited to creating a social order that minimizes the suffering of society's most vulnerable members. But while agents might tend to respond to anger by becoming more antagonistic, this is at least partly due to our current cultural understanding of what it means to be angry (Stearns & Stearns 1980). In recognizing that our understanding of anger is socially contingent, and conceptually malleable, we can begin to see that different cultural scripts and prescriptions can shift the behavioral responses that tend to be evoked by the losses that elicit anger, including responses that are more conducive to social change.

Similarly, the affective response of loss that turns us inward, and leads us to focus on our own feelings. does not always need to be detrimental to our immediate or long-term well-being. By prompting us to focus on what we did wrong, the immediate inhibitory response that is characteristic of sadness can nudge us into a deliberative mindset; in controlled experimental settings, the experience of sadness can lead people to focus more directly on the outcomes of their actions, and to think about the big picture that they want to achieve. Put differently, while sadness inhibits *goal striving*, but it can also enhance *goal setting* (Maglio et al 2013).

No doubt, it is difficult to focus on the process of setting goals when feelings of sadness wash over us; but if we can shift our conceptualization of a situation, and use negative affect in a positive and creative way, even the desire to say “no” can be made productive. Nietzsche got this much right. He observed that *creativity* is often required to enable resentment to serve as motivation for social recalibration, rather than as a commitment device. Without the ability to establish a critical distance from the norms of one's society, it is impossible to take an emotion to signal that there is something wrong with those norms, and that the best way to resolve the tension created by that emotion is to change society itself. Our conformist tendencies make it hard for us to succeed in this regard. But there is nothing that requires us to descend into despair when we contravene the norms of our society. That said, it is often a bad idea to attempt to overturn a normative order on your own. And this is part of the reason why the consciousness-raising groups can be so important to the transformation of guilt into anger in the case described by Scheman. Often, the ability to re-conceptualize our affective state requires a little bit of help from our friends, and it's a good thing because collective attempts at liberation also require help from our friends (Huebner forthcoming).

This brings us back to *Bartleby*. Regardless of Melville's intentions, the resources he provided in his story can sustain interpretations of Bartleby as hopeless, manipulative, or socially prescient. What we do with those resources depends on the knowledge and expectations we bring to bear on the story. Possessing a different understanding of Melville, 19th century Manhattan, or the nature of social change can have a significant impact on the information that the story affords. And our conceptualization of the story will depend on the top-down factors that shape how the story shows up to us. Over the course of this chapter, we hope to have shown that something similar holds for the dynamics of social emotions. Conceptualizations and social uptake shape the information that our emotions provide, and it is the interactions between our affective response to the world and our conceptualization of our situation that opens up and closes off various options for socially situated action. As it is with Bartleby, so it is with humanity.

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