The Unavoidable Intentionality of Affect: The History of Emotions and the Neurosciences of the Present Day

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Abstract

The “problem of emotions,” that is, that many of them are both meaningful and corporeal, has yet to be resolved. Western thinkers, from Augustine to Descartes to Zajonc, have handled this problem by employing various forms of mind–body dualism. Some psychologists and neuroscientists since the 1970s have avoided it by talking about cognitive and emotional “processing,” using a terminology borrowed from computer science that nullifies the meaningful or intentional character of both thought and emotion. Outside the Western-influenced contexts, emotion and thought are not seen as distinct kinds of things. Here a solution of sorts is proposed by thinking of emotional expression as a dynamic activity that declares and stirs emotions at the same time. As such, its dynamism may help historians to understand the dramatic changes and trends they investigate.

Keywords

appraisal theory, basic emotions, constructionism, imaging, intentionality, reductionism

What place does the history of emotions hold in today’s interdisciplinary geography? Some historians treat it as an aspect of cultural history. However, some of the principal introductory texts to this new field insist historians must go beyond the relativism common among cultural historians. They must also provide a critical history of the psychological theories of emotions (Boddice, 2018, p. 34; Gross, 2006; Plamper, 2015). The need for such a critical reading is all the more apparent when one takes a close look at the presuppositions of the theory of emotions that have had the greatest currency among neuroscientists in recent years.

“Basic emotions theory,” as it is called, is itself a very significant historical phenomenon. Its prominence, although not unchallenged, has endured for almost 40 years in the disciplines of cognitive psychology and the neurosciences. This longevity is itself something of a surprise in a research domain where novel methods and theories abound, and 5-year-old research reports are often considered obsolete. This theory states that there are roughly six basic emotions that are natural phenomena, and thus ahistorical. All other emotions are blends of these six. From which it follows that the history of emotions, strictly speaking, has no content.

Happily for the historian of emotions, it is not difficult to point out the weaknesses of the theory; these weaknesses are in fact so obvious that one must ask why this theory has had such a long life, and also why, only now, its rejection is beginning to seem imminent. On closer examination, it appears that this theory draws some of its strength from a centuries-old theme of Western intellectual history, a common-sense belief that dates all the way back to the ancient Greeks. This is the belief that there are natural things called affects (Konstan, 2006, 2020). However venerable this belief, one cannot ignore two troubling facts that raise doubt about the very existence of a category of “natural” emotions.

First, thanks to research on “emotions” realized in the field of European history, it is now quite well known that every significant cultural transition in the European past has been accompanied by fundamental transformations in the domain of, as it has been variously called, “passion,” “sentiment,” “affect,” “feeling,” and so on. Thus, the acedia experienced by medieval monks gave way to the melancholy of early modern humanists, which in turn was supplanted by depression by the 19th century (Frevert, 2011). Second, from the 1980s on, anthropologists began to question whether there was an equivalent to “emotions” among non-Western societies. Their research showed, more often than not, that, outside the West, people do not oppose something called “emotions” to something called “reason” or “thought,” as if these represented separate parts or “faculties” of the self (Besnier, 1990; McElhinny, 2010; Reddy, 2001).
In spite of these well-documented discoveries in other disciplines, basic emotions theory continues to have a tenacious hold on the thinking of a large number of psychologists and neuroscientists. Their fidelity to this theory is all the more surprising given that the theory rests on not very solid grounds, even by the standards of their disciplines. Since 1990 it has been the target of trenchant critiques, and several studies have all but discredited it.

The tenacity of basic emotions theory raises several crucial questions. First, has the reductionism of this theory impeded progress in neuroscience research? This is a question for its practitioners, and also for the growing number of historians who are taking a close look at the history of experimental psychology (Biess & Gross, 2014; Dror, 2016; Dror, Hitzer, Laukötter, & León-Sanz, 2016). Second, if human beings are not biological organisms with biochemical computers, and if we set aside all traditional dualist responses of the mind–body type (which are, it seems, categories that only Westerners have found it worthwhile to rely on in analyzing human nature), then what kind of beings are we? If, in effect, neither reductionist methods nor interpretive methods permit us to maintain a separation between thought and emotions (as we will see in what follows), how and by what method are we to proceed?

**Grandeur and Miseries of Basic Emotions Theory, 1970–2018**

**The Theory and Its Critics**

Basic emotions theory was elaborated in the years from 1971 to 1983 by Paul Ekman, Wallace V. Friesen, Carroll E. Izard, and Robert W. Levenson, and was subsequently defended with energy by Ekman and others. The theory in its original form privileges the status of a very limited list of emotions, presumed to be genetically programmed: surprise, joy, sadness, anger, fear, and disgust (Ekman, 1973, 1980; Ekman & Davidson, 1994; Ekman & Friesen, 1971; Ortony & Turner, 1990). These emotions are neither learned nor voluntary, but hard-wired, that is, realized by the activation of certain structural elements in the brain. According to this theory, these emotions exist independently of all cultural configurations or discursive grids, and express themselves by distinct configurations of the muscles of the face, and often by certain states of activation of the autonomic nervous system (Ekman, Levenson, & Friesen, 1983). Thus, they can be found in all human populations, expressed always in the same fashion, no matter what the historical context.

According to this theory, finally, all other emotions are only mixtures of these six. Those we talk of habitually are only mixtures of these six emotions. Of course, one can find different sets of “display rules” at work in different cultures, which rules prescribe when to display or to hide certain emotions or emotional mixtures. But only these rules of expression can vary across time and space; emotions are governed by neurophysiology and change only through evolution. Ekman has presented himself as the heir of Darwin, although some have raised doubts about his reading of Darwin’s path-breaking work published in 1872, *The Expression of Emotions in Man and Animals* (Gross, 2010).

Ekman and associates’ theory has attracted most support from cognitive psychologists and neuroscientists who rely on experimental methods. These researchers admire the primacy that basic emotions theory attributes to measurable data. By basic emotions theory, the only emotions that exist are those that can be observed through facial expressions. Clinical psychologists have found the theory to be fatally flawed for its inability to handle “social emotions” such as gratitude, benevolence, pride, shame, or guilt. Most disorders that clinicians deal with unfold in social contexts, after all (Tangney & Fischer, 1995).

**The Challenge of Anthropology**

In anthropology, a certain number of researchers have been working since the 1980s on the cultural shaping of emotions—or as one puts it sometimes, the cultural construction of emotions. Their approach, as with clinicians’, is diametrically opposed to the postulates and methods of Ekman’s theory. Their ethnographic work has been inspired by psychoanalytic theory, as well as by the thought of Clifford Geertz or Michel Foucault. Some anthropologists who rely on clinical psychology do admit the existence of basic emotions, but they all agree that one can find a panoply of emotions that are specific to each cultural context.

Among these cultural emotions are local equivalents of the social emotions of Western clinicians (Levy, 1973; Lutz & Abu-Lughod, 1990; Rosaldo, 1980). There are regulatory emotions and emotions that are morally admirable (Reddy, 2008). On the atoll of Ifaluk, for example, in the early 1980s, Catherine Lutz found that the emotion called *fago* was a kind of sad love motivating care of another—similar to *tenderness or maternal love* in English usage. Although sad, *fago* was praised as morally good (Lutz, 1988).

On Bali in the 1980s, anthropologist Unni Wikan discovered that an emotion crucial for physical health was called *mue cedang*, the “bright face.” The face, for the Balinese, was not a mask for displaying or hiding the interior self, it was above all one of the “faculties” of the self (to borrow a Western expression). *Mue cedang* was a sort of thought-emotion anchored in the face which could, from there, spread to other parts of the self. This thought-emotion was viewed as an essential instrument for maintaining internal peace. Internal peace was precious to the Balinese, because its absence rendered an individual vulnerable to black magic worked by persons who secretly hated them. According to opinions expressed to Wikan, more than half of deaths on Bali were the result of black magic (Wikan, 1989, 1990).

Sanskrit, like Balinese, does not admit of a distinction between thought and emotion, instead dividing what we would call emotions into two contrasting fields. There are, first of all, *bhavas*, transitory states of daily life. Some of them are close to those common in European-origin languages, such as joy or despair. Other *bhavas* are not emotions at all, such as cruelty, trembling, or sweat. Contrasting with *bhavas* are the *rasas*. These sublime extracts or perfumes derived from *bhavas* are the kind of feelings that gods and heroes have and that devotees and esthetes (*rasikas*) strive to feel.

Among the devout, one tastes *rasa* as the result of an effort of prayer and meditation, or by participating in rituals of the great temple festivals. Cultivated women and men once tasted...
Thus, the everyday love-lust called rasā through appreciation of works of art, poetry, or theater. This divine love-lust is called shrīṅgāra rasā (Ali, 2004; Lynch, 1990; Reddy, 2012).

In virtually all the non-Western cultural contexts so far examined, thought and emotion are not distinguished (Koziaż, 2000; McDaniel, 1995; McElhinny, 2010). But there is one constant: an ever-present concern to form, to habituate, to regulate. One might say that “reason” is just a Western example of an admirable regulatory emotion, similar to the bright face of the Balinese or the bèyu (social knowledge) of the Ilongots, or the rasa of the Sanskrit tradition. Historical and ethnographic research suggests that the most general feature of the life of the self across the world is not the opposition between reason and passion, but a concern with disciplining that expresses itself through the valorization and repetition of certain emotions judged to be admirable or preferred, precisely because they function as regulators of other emotions.

Anthropological research of the 1980s and 1990s also shows that the lexicon of emotions varies markedly from one cultural context to another, and translations across languages are often quite inexact, even misleading (Reddy, 2001, pp. 1–20). Kantō (shame) among the Pintupi of Australia around 1980, for example, only approximated “shame” as defined by Helen Block Lewis in a celebrated study of 1971 (Ciccone & Ferrante, 2015; Lewis, 1971; Myers, 1986; Tangney, 1995). For the Pintupi, according to Fred Myers, kunta is a regulatory emotion that helps individuals determine whether other emotions are appropriate to a situation or not (Myers, 1986, pp. 120–124). Lewis, on the contrary, distinguished guilt from shame, the former responding to an individual act, the latter enveloping the whole self. Lewis’s distinction, still used by clinicians today, does not apply outside contemporary Western or Western-influenced contexts. Even Europeans did not understand shame in this way prior to the modern era (Reddy, 2012).

Another remarkable finding of ethnographic and historical research: with few exceptions, languages tend to possess a rather large vocabulary for naming all that relates to “emotions.” In general, semantic analysis of a given language’s emotional lexicon proves difficult, running into numerous contradictions (see e.g., Alstola, Jauhiainen, Sahala, & Lindén, 2018; Heider, 1991). There are several partial synonyms for each “emotion,” and antonyms for some that are not shared by all the partial synonyms. The situation in French is typical. For amour (love), the website www.CNRTL.fr gives as synonyms: passion, attachement, tendresse, inclination, penchant, délectation, coup de foudre, and dévoûement. The slang website www.dictionnairedelazone.fr provides additional partial synonyms: kif, love, croque, among others. Each of these words has a separate, if overlapping, aura of associations. In using one of them, one can designate (or attempt to shape?) a unique affect. A friend who tells us, “J’aime mon mari” (I love my husband) communicates the image of a sentiment quite different from “J’ai un attachement profond pour mon mari” (I have a profound connection with my husband) or “Je kiffe mon mari” which could be roughly translated “I relish my husband.” How can such a domain be grasped with a theory that only admits of six elements—including love, pride, nostalgia, shame, bitterness, relief, gentleness, laughter, or what in French is called ricanerie (vile ironic laughter), etc.? (On the surprising history of nostalgia, see Dodman, 2017.)

One of the weaknesses of Ekman’s experimental method—which enabled him and his associates, seemingly, to confirm his theory with studies on many continents—is the use of what is called “forced-choice” responses. James Russell has critiqued this method eloquently. By this procedure, subjects are shown six photographs of faces whose expressions have been carefully posed by the experimenter to represent each of the six basic emotions (Russell, 1994). Subjects are then told to select one of six words to correspond to each of the expressions. They cannot go outside the list, nor can they use a word more than once. Russell argues that this method significantly biases the results. When subjects are free to choose any word they wish to describe the same photographs, their responses vary widely, revealing the richness of the emotional vocabulary of the language in use.

The Silence of Historians

Unlike clinical psychologists and anthropologists, historians, with only a few exceptions, proved reluctant to discuss the subject of emotions, on the assumption that they could not leave any tangible or textual trace in our sources. Some did not think it was the historian’s task to breathe life back into the dead words of the documents (Tanner, 2008). There was no group of historians similar to the specialists in “psychological anthropology” grouped around the journal Ethos, who have continued to draw on clinical psychology and whose noteworthy figures include Robert I. Levy (1973), Arthur Kleinman (1981), Gananath Obeyesekere (1990), Bambi Chapin (2014), or Tanya Luhrmann (2000, 2012). Under the circumstances, it is no surprise that the attempt to launch psycho-history in the 1970s was soon pronounced a failure (Stone, 1979). A few historians took an interest in emotions, but most preferred Marxist or Weberian approaches that privileged institutions, structures, class consciousness, or processes of rationalization.2 Stearns and Stearns (1985) boosted historians’ interest in emotions substantially by pointing to the existence of a vast advice literature by moralists and etiquette experts that told people what they ought to feel and how to strive for proper feeling.

It is worth noting that the growing influence of Michel Foucault in the 1980s and thereafter gave many historians new reasons for avoiding discussion of emotions, at least at first. If the very existence of the individual subject is just a secondary effect of a certain discourse, or the surface phenomenon of a certain episteme, then to examine the supposed depths of individual experience in the past is about the same as telling fairy tales. Moreover, Foucault himself said very little about emotions (e.g., Foucault, 1966). Of course, he opened up a whole range of new topics for historians—including the history of insanity, of incarceration, of sexuality. And research in these new areas, as well as into gender, helped compel historians finally to pay attention to the cries and whispers of emotional life.
A final point: Few of the historians who have turned toward emotions have taken inspiration from psychoanalysis. The lacunae in Freud’s account of emotions is partially to blame. Ulla Jensen has argued that Freud saw the adult emotions arising from infantile crises. But in his discussions of these crises, there is no attempt to explain where infantile emotions come from (Jensen, 2008). For example, why should the sexual desire of the infant necessarily provoke jealousy or rage against the father? To make this link requires rather sophisticated cognitions—perhaps too sophisticated—including the idea of an authority without appeal as well as the idea of an inveterate resistance. Can such a sentiment, or rather such a conviction, arise “naturally” in the infantile psyche? In effect, the emotions of early infancy are simply presumed to possess a self-evidence and a primitive intensity.

Yet psychoanalysis remains a fruitful terrain for the formulation of hypotheses about social and cultural history, as exemplified in the celebrated works of Norbert Elias (cf. Deluermoz, 2012), Erik Erikson (e.g., Erikson, 1962), Peter Gay (e.g., Gay, 1984–1998), Michel de Certeau, Julia Kristeva, or Carl Schorske. But it is perhaps the work of sociologist Norbert Elias, Über den Prozeß der Zivilisation (1939), on the history of manners, that has best articulated psychoanalytic theory onto the preexisting preoccupations of historians and sociologists with the rise of the state, social class, or commerce. He showed how social structures and psychic structures could gradually transform each other. Elias’s analysis came to the attention of historians from the 1970s on, and continues to inspire thinking today, especially among medievalists who have completely dismantled his chronology, jettisoned his teleology, and gained a whole new approach to courtly culture in the process (Rosenwein, 2002; see also Boddice, 2018, p. 28).

The Theory of Basic Emotions Within the Western Cultural Arena

Theoretical Rigidity and Historical Variability

Some day, it will be necessary to write a critical history of the cultural configuration “reason/emotion” in the West. We are not yet there. But historical research does permit one to lay out roughly some groundlines. Well known is the ancient Greek mistrust of the “passions,” as evidenced by the example of Stoicism, as well as the Christian transmutation of the medieval period, which produced its own dualism between reason and passion. By this revised dualism, from Augustine on, one distinguished between emotions dangerous to salvation and those which, turned towards God, went far beyond cold reason. According to Augustine, only God’s grace enabled human beings to resist passionate impulses (Boquet, 2005; Boquet & Nagy, 2015; Brown, 1987; Brundage, 1987; Reddy, 2012).

It was not until the 17th century, with the emergence of mechanist philosophies in the works of René Descartes, Thomas Hobbes, and others, that a subsequent transformation of the reason/passion dualism appeared (Dear, 1988; Gaukroger, 1995; Schneewind, 1998). Descartes’ theory of the passions is in effect a precursor of Ekman’s theory (Descartes, 1649; Meyer, 1991). Writing as a simple “physicist,” as Descartes put it, he found the “primitive passions” to be intermediate phenomena between body and spirit. His list of passions is, like Ekman’s, formulated in a spirit of reductionism: admiration, love, hatred, desire, joy, and sadness. Descartes like Ekman speaks of the human being as a mechanism. But he warns his readers that the machine is not the whole thing. Thinking substance and extended (material) substance were so different that their combination in the human case seemed miraculous, and remained mysterious to Descartes, despite his efforts to account for it (Baertschi, 1992; Gaukroger, 1995, pp. 384–405). Today, as well, the question of the relation or bridge that unites body and mind, mechanism and intentionality, reflex and reflection, remains unresolved. This dichotomy was destined for a long posterity.

And so was the idea of the unchanging physiological basis of emotions. For Freud, emotions were much more varied and rich than for Ekman. But both agreed that they were fixed, unchanging. Each emotion is a force that pushes us to act and lies beyond the reach of any analysis. One word is enough to describe it: fear is always fear; jealousy is in all times and places jealousy. A smile is understood in all languages.

The problem is that this is simply not true. It is enough, to convince oneself of this point, to watch a video of an Odissi dance by Nandini Ghosal, in which she represents the goddess Durga, as Durga does battle against the ferocious demon Mahishasura (Ghosal, 2008). In a first phase of the dance, Nandini Ghosal interprets the goddess’s reception of arms given her by all the gods. A sad smile (weakness? fear?) fixed on her face. All the gods together could not defeat the demon. With their united energy they have created Durga and now they arm her, their last hope. In a second phase, the dancer portrays Durga on the attack. She shoots arrows one after the other, then she slashes the demon with her sword. What is that emotion on the face of Durga during the time she kills off the demon blow after blow? Calm? Surprise? Eyebrows lifted, eyes wide open, mouth closed, her face framed by an elaborate coiffure, she shows inflexible determination and unchallengeable mastery over the most powerful of all deities—that is one possibility.

As different as Freudian psychoanalysis and Ekman’s experimental theory are, they have in common a refusal to explain the surplus of meaning that human emotions can acquire, and in doing so they refuse to envisage the variations of emotions in history. Worse still, the works of Peter Gay or Norbert Elias, both consistent followers of Freud, cannot adequately take into account the slow modifications of the domain of emotions across the centuries, to say nothing of following the shifts in the frontiers of this domain. One has to ask if the melancholy of Richard Burton in the 17th century could have been experienced in the same fashion as the depression of the Diagnostic and Statistical Manual V (DSM-V; cf. Sullivan, 2016). One has to ask if Calvin’s zeal was identical to the zeal of Jonathan Edwards (Bernat & Gabriel, 2013; James, 1902, pp. 217–258).

The Universal That Cannot Be Named

Of course, we must realize that there are also continuities across the centuries. Any attempt to theorize emotions as pure
discursive constructions appears doomed to failure. Beyond discourse strictly defined (signs syntactically arranged into sentences, propositions), there is the body, there is blushing, sweat, the shudder, adrenaline, the furrowed brow—signs that cannot be treated as entirely arbitrary or conventional, even if they lend themselves to varied meanings with a flexibility that we still do not fully grasp (Jackson et al., 2019).

The new concept of posttraumatic stress disorder (PTSD), for example, designates, in all probability, something universal—a capacity to be struck, shocked, altered, by episodes of extreme violence or of danger that is extreme and/or prolonged. No doubt, the French knights at the Battle of Agincourt (1415) traversed crises that differed in many respects from those faced by the soldiers of the French Third Republic at Chemin des Dames in 1917. But it also seems certain that there are real resemblances based on the “psychophysiology” of a body-person who must confront destructive chaos (Das, 1998). Because the role of cognition is so profoundly enmeshed with the responses of this body-person, even its most intense responses, one cannot exclude the likelihood that there are continuities across time and space based on a shared logic or meaning, as well as continuities based on shared features of physiological activation or pathologies of memory (Halligan, Clark, & Ehlers, 2002). What is cognitive (cultural, historical), what physiological, is a question we cannot answer at the present time. However, we can at least refrain from closing the question prematurely by the dogmatic imposition of an abstract principle.

Is it possible to compare certain cognitive contents common in infancy—such as that fire is hot or a blade cuts—with other purely “logical” principles such as that “the whole is always greater than the part,” which Pierre Bayle liked to recite as an example of a universally self-evident truth? (cf. e.g., Bayle, 1686). The concept of trauma derives originally from psychoanalysis; PTSD was validated in the DSM IV and subsequently it was widely adopted for designating a state presenting a relatively fixed array of characteristics (Fassin & Rechtman, 2007). One can discover traces of these characteristics and witnesses’ accounts of their effects in documents from every period of history—yet that does not demonstrate the existence of the “syndrome” itself outside of the present period, in which the mental health disciplines have immense influence on official thinking (Audoin-Rouzeau & Becker, 2000; Kuijpers & van der Haven, 2016).

Basic Emotions and the New Technologies of Brain Imaging

The Unavoidable Recourse to Hermeneutics

If the question is to understand how to examine the relation between mechanism (body, organism) and meaning (soul, discourse), then the new technologies for tracing the “activations” in the interior of the brain cannot offer us the least bit of help. There is a very simple reason for this: Access to intentionality, or to meaning, does not pass through a switch or a neuronal pathway or a synapse. Meanings and intentions cannot be observed, except by talking with the person under observation, except by relying on her capacity as a conscious and reflective human being, and also, by the way, as a person sharing an adequate linguistic competence with the experimenters.

In psychology, meaning-making (assigning values to voxels and color, to event-related potentials, cardiovascular, respiratory, or perspiration changes, and so on) happens during measurement. Even in the simplest and most rigorous experiments, one must always instruct participants and count on their good faith in following instructions. To be sure, there are statistical tests that reveal “outliers,” aberrant data that reflect a participant’s failure to understand or to follow the rules. But even a perfect consensus does not guarantee that results will be probative of human nature, which is psychology’s proper subject. Such a consensus may result from the fact that researchers and participants share a similar vocabulary that classifies reality in some arbitrary fashion, or they may share a theory of the self that influences local understandings of the instructions given by experimenters or influences their fashion of understanding their own responses to stimuli.

Some humanists have pointed out this invariant barrier, one that the neuroscientists often prefer to pass over in silence (Gross & Preston, 2014; Reddy, 2014). For example, measuring reaction times (RT) depends on the willingness of participants to respond as fast as possible. That one is supposed to strive to win a race is easy to explain in a capitalist society of the Western type, where individuals are habituated to competition in all domains of daily life. But with a group of participants who regard the idea of winning as dangerous or impolite, or politically risky, participants might well slow their responses so as not to insult their comrades. Suppose that the participants in an experiment included the Duchess of Urbino and a number of courtiers, bishops, and ladies in waiting of the Urbino court of the early 16th century—the court depicted vividly by Baldassar Castiglione in his famous Book of the Courtier (1528). It would not be surprising to find that the RT of the duchess was the smallest, or that the ladies of the court beat the men. A good courtier is not supposed to distinguish himself too blatantly in the presence of the duchess and her ladies. Quite the contrary, one must always display at court a certain nonchalance incompatible with striving to win or excel.

Researchers try to insure that their participants have a uniform social and cultural background. But this goal itself is defined according to criteria that are cultural and intentional. There is, in reality, no way to escape the vicious circle of discourses and their interpretation to arrive at data that would be, somehow, purely material and “objective.” Worse still is the case of those experiments that rely on the data of self-reports. Speaking to people who will serve as participants in experiments and listening to what they say are daily necessities in all branches of psychology and the neurosciences, just as much as in sociology or anthropology.

Invisible Emotions

Setting these difficulties aside for a moment, let us recall that, over the last 25 years, brain imagery has contributed in a decisive way to the debate over basic emotions theory. Without
resolving the difficulties posed by modern body–mind dual-
ism, brain imaging has disappointed the expectations of
Ekman’s disciples. A good example is a meta-analysis carried
out by a team of researchers led by Kristen A. Lindquist, and
Analytic Review,” in Behavioral and Brain Sciences
(Lindquist, Wager, Kober, & Bliss-Moreau, 2012). The authors
assembled raw data from 234 studies dealing with emotions
in the brain, derived from 656 sets of scans. These studies all
dealt with the “activation” of parts of the brain. By “activa-
tion” is meant an increased use of oxygen (in fMRI scans) or
of sucrose (in PET scans).

The authors of the meta-analysis note that most of these
studies dealt with only one emotion and often focused on one
part of the brain, or a very small number of brain regions, that
they already believed to be involved in that emotion. Thus, stud-
ies of fear responses often focused on the amygdala, or responses
of disgust on the insula (Lindquist et al., 2012, p. 123). This
kind of study presupposes, and thus cannot prove or disprove,
the existence of a one-to-one relation between one structure in
the brain and one basic emotion. Many if not most adherents of
basic emotions theory expected brain imaging to show that each
basic emotion was to be supported by its own structure or sub-
structure. They expected the most likely location of such struc-
tures would be the subcortical parts of the brain, considered to
be more “primitive,” because found in the brains of many sim-
er vertebrates.

But a study that looks only at subcortical structures cannot
determine the validity of basic emotions theory. It is true that, if
one finds the amygdala to be activated when participants are
shown photographs of snakes, the finding does not disprove
basic emotions theory, but neither can it prove the theory.

The meta-analysis by Lindquist and associates suggests, on
the contrary, that each emotion is associated with the activation
of a network of brain regions. And, although each emotion
appears to activate a different network, often the differences are
slight. Numerous regions show up in the networks of a range of
emotions. The amygdala, for example, displays activation dur-
ing emotions reported by participants as anger, disgust, fear,
happiness, and sadness—five of the six “basic” emotions.

Lindquist and associates also distinguished between tests
involving the perception of emotion (what emotion is displayed
by a face or a bodily response) and the experience of the same
emotion by the participants. In this way, they found that the
amygdala is more sensitive to the experience of disgust than to
the perception of anger, and to the perception of anger than to
the experience of fear.

The insula and other structures examined in the meta-analy-
sis are equally associated, each in a complex and variable way,
with a range of affective responses. The authors conclude that
the results of their meta-analysis do not agree with the predic-
tions of basic emotions theory. Appearing with their article in
Behavior and Brain Sciences were 28 comments from other
neuroscientists. All commenters agreed that the meta-analysis
constituted a solid refutation of the idea of one-to-one mapping
between emotion and structure—that is, of the “modular” or
“locationist” hypothesis (also referred to as “functional segre-
gation” or “function specificity”).

The commenters offered only limited support for Lindquist
et al.’s (2012) alternative hypothesis, however. Their proposed
alternative was to think of emotions in terms of “psychological
constructionism.” Their results, they believed, were consistent
with the idea that emotions, taken individually, are not natural
kinds, and with the idea that “even categories like emotion, cog-
nition, and perception are not respected by the brain” (Lindquist
et al., 2012, p. 139, emphasis in original). Obviously, this
conclusion is in perfect agreement with the constructionism that
a good number of anthropologists have adopted to make sense of
their fieldwork on emotions. We witness here an unexpected
convergence between a social science fundamentally dependent
on hermeneutics, that is, the work of interpretation, on the one
hand, and on the other, an experimental science that, on the con-
trary, relies on “objective” measures generated by advanced
digital imaging.

**Popularizing Emotional Constructionism:**

**The Transportation Safety Administration (TSA) Versus the General Accounting Office (GAO) Report of 2013**

It is evident, then, that the Ekman approach is facing difficul-
ties. Suppose one were to accept a strict reductionist view
according to which all human experience and human history
could be explained by a sufficiently detailed examination of the
series of physiological states that human brains have traversed
(e.g., Smail, 2007). Suppose that one also accepted the hypo-
thesis of Lindquist and associates, which is, we must remember,
fully compatible with this kind of reductionism. It would follow
that a very large role must be reserved for the influence of lan-
guage, discourses, habits—“culture” in short—in the experi-
ence that each person has of herself, and that each person has of
her own emotions and of the emotions of others.

The database that Lindquist and associates (2012) drew on
has served as the starting point for several other studies (Barrett
et al., 2007; Barrett, Mesquita, & Gendron, 2011; Lindquist &
Barrett, 2008). In 2016, Lisa Feldman Barrett, key member of
the teams behind all these studies, launched a campaign to pop-
ularize their new findings and their psychological construction-
(Barrett, 2017a) has met with considerable success and attracted
considerable media attention.

This success does not, for the moment, equal that which
Ekman has enjoyed. This is especially true in view of the fact
that, since 1988, Ekman developed a method for detecting lies
based on the measurement of slight movements in facial mus-
cles. This method of lie detection, directly linked to basic emo-
tions theory, was taken up by the U.S. Transportation Security
Administration (TSA) after the September 11, 2001 attacks in
New York and Washington, DC. The TSA hoped to train experts
capable of seeing tell-tale muscle movements in the faces of
persons who were lying to TSA officials. A program of research
was launched to improve the reliability of such detection, and a television series appeared based on this research, dramatizing the work of such a lie-detection expert, *Lie to Me* (2009–2011, on the Fox Network).

But the scientific results of this research have remained disappointing. According to a U.S. Government Accountability Office (GAO) report of 2013, despite the expenditure of $900 million, the experts trained by the TSA were able to accurately identify liars only 57% of the time, that is, only 7% above chance level. Lisa Feldman Barrett, then, turned to popularizing her teams’ research results at an opportune moment. And she will doubtless continue to undermine the favorable opinion still enjoyed by basic emotions theory among a very large proportion of the public.

In addition to Lindquist, Barrett, and other members of their teams, there are a number of other neuroscientists who have distinguished themselves by offering refutations of basic emotions theory, especially in its “locationist” version. Noteworthy is Luiz Pessoa, who published a book in 2013 that assembled the results of numerous research reports he and others have carried out on the amygdala and other subcortical structures. Rejecting the idea that the amygdala is responsible for fear or anger, Pessoa suggests that several of the subcortical structures have been transformed during a long process of evolution. According to Pessoa, one must resist any hypothesis that sees them as more “primitive,” or as parts of a “reptilian brain” or a so-called “limbic system.” These kinds of hypotheses, by the way, are quite compatible with the Augustinian vision of a soul constantly menaced by a body full of turbulent animal appetites and passions (Brown, 1987, pp. 46–58, 387–427).

According to Pessoa (2013), the location beneath the cortex of several structures—including the amygdala, the hypothalamus, the pulvinar, and others—is well suited to their taking on the function of “hubs” which coordinate the operation of diverse parts of the cortex. Their “massive” direct two-way connections to most of the cortical regions are compatible with Pessoa’s “hub” hypothesis. The amygdala, in particular, according to Pessoa, appears to be charged with the distribution of attentional resources according to the needs of the moment. There is perhaps no “function” one could think of that could be “higher” than that. If one is concentrating on a difficult text, it is perhaps at the level of the amygdala that the presence of a fly, the sound of an alarm, or the peripheral impression of an angry face are registered, via the amygdala’s connections with numerous levels of the visual and auditory cortices. A signal from the amygdala sent on to the “executive” centers of the prefrontal cortex can ensure that the fly, the alarm bell, the face become a “distraction” for the reader, disturbing her work and simultaneously, perhaps, saving her life. Pessoa’s book is not aimed at a larger reading public, but it does pull together the results of a large number of studies he and other neuroscientists have carried out on animal and human subjects, including both lesion studies and imaging studies.

As with Barrett, Lindquist, and associates, Pessoa and his team members are resolutely reductionist in their presuppositions and methods. But, again, one finds a remarkable convergence between the idea of subcortical “hubs” and the conclusions of anthropologists and, more recently, historians on the apparent fact that the domain of emotions, as understood in Western and Western-influenced regions, is not distinguished from the domain of thought outside the West. Moreover, these experimental findings cohere with the findings of anthropologists and historians that the domain of emotions has been subject to great variations of definition and of subdivision across the centuries and from region to region.

**Reductionism and Intentionality**

*The Contributions of Ruth Leys*

In a discussion such as this one, the recent book by Ruth Leys repays close attention. Published at the end of 2017, *The Ascent of Affect* is a masterful display of erudition that presents and critiques with equal intelligence a series of philosophical, literary, neuroscientific, and historical works. Concerned with the meaning or intentionality of affects, Leys, with a few brushstrokes explores the advantages and disadvantages of theories of a number of thinkers, including Ludwig Wittgenstein, Paul Grifiths, Craig Delancy, and Phil Hutchinson. She then analyzes, in turn, the theories of emotion of the most influential experimental psychologists since the 1950s (Silvan S. Tomkins, Paul Ekman, Richard S. Lazarus, Robert Zajonc, Alan J. Fridlund, and Antônio Damásio, among others), with respect to the simple question: How does this theory handle the “problem of emotions.” As formulated by Phil Hutchinson, this problem results from the fact that each emotion, even those that seem natural, that is, corporeal or neurophysiological in origin, possesses an evident meaning, they are about something (Leys, 2017, p. 4) This is the same problem that Descartes found so difficult to resolve.

With the development of cognitive psychology based on laboratory experimentation, psychologists launched a debate in 1980 on this old question. On one side, the partisans of “appraisal theory,” and on the other, the partisans of theories anchored in neurophysiology. Leys brings out the multiple paradoxes and ironies of the debate. For the one side, each emotional episode crystallizes around a judgment or appraisal, that is, a cognition about the pertinence or value, vis-à-vis oneself or one’s interests, of a situation, object, or event. Without cognition, no emotion. On the other side were those who preferred to see affect as a system of responses that functioned independently of the cognitive system. This party insisted, in consequence, that affect is essentially physiological. Among them were partisans of basic emotions theory, as one might expect.

In the 1980s, the latter group, under the leadership of Robert Zajonc, saw in evidence of the extraordinary speed of certain emotional responses, and in their capacity to mobilize bodily responses outside the person’s awareness, strong indications of the independence of the emotional system. According to Zajonc, such emotional “judgments” could not possibly be personal or meaningful—that is, intentional—because the individual had not had the time to determine their meaning, much less to decide on
his relevance or formulate intentions with respect to them. Zajonc’s argument could have provided support for the traditional stance of historians toward emotions, according to which, they are phenomena outside the reach of the discipline, and, in any case, of very limited interest for understanding historical events.

On the other side, under the leadership of Richard S. Lazarus, the partisans of “appraisal theory” insisted that a response to a stimulus, however rapid, had to be a cognition of some kind—and this included responses that put the body into a state of mobilization (due to surprise, panic, rage, etc.). Otherwise, these responses themselves would be incomprehensible to the person who underwent them. Leys picks up the argument made by Alice M. Isen and Gregory Andrade Diamond in 1989, according to which “experiments increasingly are showing that meaning and interpretation do play a role in cognitive processing that otherwise fits the definition of ‘automatic,’ and that automatic processes can be interrupted or modified” (Isen & Andrade Diamond, 1989, pp. 138–189, as quoted in Leys, 2017, p. 183). Isen and Andrade Diamond further suggested that “the automaticity of affective reactions was the result of ‘overlearning’ or repeated exposure, producing effects of apparent irresistibility” (Isen & Andrade Diamond, 1989, pp. 138–189, as quoted in Leys, 2017, p. 185).

Learning by Repetition: A Bridge Between Mechanism and Intentionality

In other words, according to Isen and Andrade Diamond, emotional responses that are rapid and apparently involuntary can be relatively involuntary in the short term. But they result from a great number of repetitions (“overlearning”).

This remark, which Isen and Andrade Diamond did not develop into a theory, nonetheless constitutes a mandate for historians, anthropologists, or sociologists who are undertaking research on emotions. Obviously, such repetitions include those which an individual cannot avoid, such as the connection between the growl of a dog and the dog’s subsequent attack. Other repetitions are voluntary and intentional. Intentionality also attaches to those repetitions that are the product of collective practices, such as the repetition of Christmas carols every winter in the piped-in music of shopping centers in predominantly Christian regions. Such repetitions across a whole life give the traditional repertoire of Christmas music the capacity to recall and also to reactivate positive and negative sentiments that a person first and/or frequently experienced in this season.

Responses to collective practices of repetition are “involuntary” in two senses: (a) involuntarily with respect to the norms and imperatives that virtually obliges musicians and shopping center managers to select pieces expected by the public; (b) involuntary because the individual is expected to embrace certain normative intentions in a “cultural” context in which she cannot escape such repetitions. One is tempted to call certain emotions, then, voluntarily involuntary. One might consider, for example, those emotions that one decides to cultivate simply by embracing the life of a monk or the career of a state trooper. Institutions organize and require, as a condition for their survival, collective practices that are intended to favor “involuntary” experiences of a whole series of emotions.

As we have seen, the result of more than 20 years of research with new brain imaging technology tends to confirm the arguments of the partisans of “appraisal theory,” assuming one accepts the meta-analyses of the teams that have worked with Lindquist and Barrett or the conclusions that Pessoa has independently arrived at. Repetition is supposed, then, to offer a kind of bridge by which intentional acts of an individual can play a decisive role in the fashioning or shaping of the shifting networks of brain activation.

The Vast Construction Site of the Neurosciences

That many neuroscientists continue to rely on the approach of Ekman and his colleagues (e.g., Agid, 2013; Eagleman, 2011) can be explained in part by the marked tendency of neuroscientists to specialize. This tendency is easy to understand in view of the huge size of the nervous system (100 billion neurons, according to recent estimates) and also of the vast resources devoted to research in this field (87,294 neuroscience articles were listed in the pubmed.gov database in 2015 alone, as opposed to 47,383 in 2005; figures from Chudler website “Neuroscience for Kids” at http://faculty.washington.edu/chudler/what.html).

New paradigms, as they are called, emerge constantly, here and there, in the diverse domains of this grand scientific enterprise. As a result, when neuroscientists turn their efforts to exploring larger themes than those covered in their own laboratories, they may not be better informed of what is happening in a neighboring domain than any other outsider. If so, they may fall back on verities learned in graduate school. But without a doubt there is another factor: a professional repugnance to abandon models that offer ways to operationalize measurement. In this respect, Ekman’s models retain considerable advantages, because they permit one to measure “emotions” (as defined by the models) by means of the movements of facial muscles, by changes in skin conductivity, or heart rate. In this way, one may simply define out of existence the question that concerns Ruth Leys: Whether one can discern and thus explain that kind of coordination that gets established between persons’ intentions, which are inseparable from their “cognitions,” and the activations of the nervous system.

Ruth Leys offers a compelling analysis of the inappropriate adoption of computer terminology that seems to have occurred by spontaneous accord among experimental psychologists in the course of the 1970s. Was this a question of metaphor or reductionism? It is often difficult to say. But to talk of “cognitive processing,” whether in series or in parallel, has become an almost universal habit, accepted by many without fully realizing that this way of talking sets aside the question of intentionality without resolving it (Bickhard, 2015; Brette, 2019; Taylor, 1971). Talk of “processing” in effect ends up hiding “the problem of emotion” as formulated by Phil Hutchinson.
Is It Permissible to Retain the Concept of Emotion?

To conclude, can we retain the concept of emotion? Only provisionally, it would appear. However, historians are quite familiar with retaining notions “provisionally.” The concept of emotions is a key concept, in widespread use in the social sciences and humanities today. Like the concept of “sexuality,” of “social class,” of “gender,” of “identity,” and so on, it is a concept that the historian cannot use with its present-day significance beyond a certain range of contexts without risk of anachronism. The anachronisms that the concept of emotion can give rise to are quite glaring, in fact, to any historian with a minimum of critical awareness.

To trace the limits of the contexts within which anachronism can be avoided in using the concept of emotions is a principal task of any history of emotions, just as with any history of gender, sexuality, science, politics, and so on.

An age-old assumption that reason and emotion are opposed, often conflicting faculties of the self, warrants critical investigation (Boddice, 2018, pp. 85, 96). In Western history, it is worth noting, the concept of reason has been habitually used for centuries with two quite different meanings, meanings which have often been treated as identical. One could name them Reason 1 and Reason 2. “Reason 1” is a concept that applies to any series of propositions or statements that are tied together by rules one can articulate, whether these rules are called “axioms,” “logic,” “dialectic,” or “language games.” “Reason 2” is an emotional style distinguished by a continual and successful effort to remain calm (a word that should be included in any list of affects admired in Western contexts). Calm, in principle, permits a period of reflection before one takes decisions or expresses one’s sentiments or views. Reflection, in this sense, is usually understood as a manner of thinking that consists in constructing a sort of image of one’s own person as if one were another being capable of examining oneself intimately.

The procedures employed in Reason 1 must agree with articulated rules or rules that could be, in principle, articulated. But the procedures of Reason 2 are vague, mysterious, learned more by imitation or reading works of poetry or fiction. Reason 2 ought to be included in any list of regulatory emotions, alongside of kunta (among the Pintupi in the 1980s), mue cedang (among inhabitants of Bali in the 1980s), béya (social knowledge among the Ilongots of the 1970s), song (justified anger among inhabitants of Ifaluk in the 1980s), and others (see Reddy, 2008, for more examples).

In the Western tradition, when one speaks of reason as a faculty of human nature, one wants to refer to Reason 1 and Reason 2 at the same time, but, most often, speaking of reason is unnecessary except in contexts where one seeks to persuade people to conform to Reason-2, that reason so often presented as an admirable moral standard, and which warrants being called a normative emotional style, or an emotional “regime” (Boddice, 2018, pp. 80, 193–201).

The expression of emotions is dynamic. The words and gestures that one chooses to use have an immediate effect on the allocation of attentional resources (Ellsworth, 1994, p. 193; Kagan, 1984). One devotes more attention to the attitudes and intentions associated with the expressed emotion. Often the result is that this emotion becomes clearer, more intense. But the opposite can also happen. The expression of emotion ought therefore to be considered an act that changes the world. For this reason, I have proposed that any emotional expression be called an “emotive,” by analogy with the well-known concept of “performative” proposed by J. L. Austin—that type of utterance that is the act that it refer to, such as “I promise you that . . .” or “I swear that . . .” Expressing an emotion declares and stirs emotions at the same time.

This dynamism is such that every community must be concerned with managing, if possible, the habits of emotional expression of its members. To ensure a minimum of unity and effective communication—even that minimum necessary for coherent conflict and debate—a community must attempt to impose one or more “emotional styles.” At some point, the normatively approved emotives may lose their effectiveness, and, in that case, a community can be thrown into crisis. A search for new emotional styles begins. Perhaps a subordinate style, only partially elaborated, will replace the style of the dominant milieu, and in this way help certain challengers to get ahead. Considered from this dynamic perspective, the study of the history of emotions can prove useful, ultimately, for understanding that dynamism of history which new cultural historians were unable to come to grips with.

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Notes

1 One may think here of Philippe Ariès, Georges Duby, Jean Delumeau, Jacques Le Goff, Arlette Farge, or Alain Corbin; see, for further discussion, Mazurel (2014).

2 One more noteworthy exception is Raymond Williams’s work to understand the history of “structures of feeling”; see especially Williams (1975).

3 Her Ted Talk of December 2017 (Barrett, 2017b) had gathered over 4.4 million views as of June 18, 2019.

4 On this controversy, see Leys (2017, pp. 128–219).
References


