

Introduction: Developing a biocultural approach to the emotions

Alexander Laban Hinton

Biological scientists, and those whose interests center on natural selection and the evolution of species, tend to emphasize species universals in the emotion process, often to the exclusion of variability; in contrast, social scientists and those whose interests center on ontogenesis and learning tend to emphasize the role of society and culture in shaping the emotion process. How can we reconcile biological universals in emotion with sociocultural sources of variability?
(Lazarus 1991:35)

In fact, the habit of thinking about phylogeny and ontogeny as alternative processes whereby information enters the organism is the very frame on which our endless nature–nurture disputations are woven. Nativism and empiricism require each other as do warp and woof. What they share is the belief that information can preexist the processes that give rise to it. Yet information “in the genes” or “in the environment” is not biologically relevant until it participates in phenotypic processes. Once this happens, *it becomes meaningful in the organism only as it is constituted by its developmental system.*
(Oyama 1985:13)

In the past few decades, academic interest in the emotions has undergone a dramatic resurgence in such fields as psychology, anthropology, biology, philosophy, history, women’s studies, and sociology.¹ Unfortunately, debates over the emotions frequently lapse into nature/nurture dichotomies. On the one hand, universalists claim that the emotions are innate, biologically based states that are modified only slightly by culture. On the other hand, relativists claim that, while emotions may have a physiological basis, this biological component is insignificant when compared to the impact of cultural factors. This type of biology/culture opposition is firmly rooted in a Western intellectual tradition dating back to Aristotle’s Four Causes and Cartesian Dualism (Bunge 1980; Oyama 1985). Thus, we find the study of the emotions dividing along the following axes (Lutz and White 1986; White 1993):

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nature/nurture
 universalism/relativism
 materialism/idealism
 positivism/interpretivism
 individual/social
 body/mind
 reason/passion
 rationalism/romanticism
 biology/culture

Though most scholars will deny that they partake in these dualisms, related assumptions frequently seep into their work.

The essays in this volume seek to demonstrate ways in which it is possible to move beyond such “nature or nurture” dichotomies and develop approaches to the emotions that take account of both biological and cultural factors. Some of the authors propose theoretical innovations that accomplish this goal; others provide examples of how biocultural research on the emotions can proceed. This introduction is intended to situate these essays within the larger context of academic debates about the emotions. The first section describes four traditional approaches to the emotions. I then discuss some of the differences between the seemingly antithetical universalist and relativist perspectives on the emotions and assess the strengths and weaknesses of each stance. In the third part, I locate the essays in this book in relation to four theoretical approaches – biocultural synergy, embodiment, systems theory, and local biology – that make it possible for the different contributors to bridge the universalist/relativist, biology/culture, nature/nurture divides. I conclude by outlining seven steps researchers can take to develop a more integrated approach to the emotions.

Traditional approaches to the emotions

Although René Descartes (1649/1989) himself took a somewhat interactive stance toward the emotions, his separation of mind and body provided a dualistic model that served as the basis of much subsequent theorizing on subjects such as the emotions. At the turn of the twentieth century, for example, many scholars assumed that emotions were located in the body and conducted their research accordingly. While it is possible to divide up the genealogy of emotion theory in different ways, four influential traditions – evolutionary/ethological, physiological, psychodynamic, and cognitive – continue to influence scholars.² I will provide brief sketches of these traditions, though obviously I do not have space to pay adequate due to the complexities of each one.

Charles Darwin’s (1872/1965) research on the emotional expressions of

Table 1 *Traditional approaches to the emotions*

Tradition	Seminal figure(s)	Theoretical emphasis on emotion
evolutionary/ethological	Darwin	adaptive responses, behavior
physiological	James, Cannon	bodily processes
psychodynamic	Freud	psychic conflict, unconscious
cognitive	Aristotle	conscious mental activity

humans and animals laid the foundation for the *evolutionary/ethological tradition*. From a Darwinian perspective, emotions are viewed as adaptive responses to recurrent environmental situations that are significant to an organism's well-being. On the one hand, the emotions prepare organisms to react to such events in ways that increase their chance for survival (e.g., attachment behaviors, the fight or flight response). On the other hand, emotions serve a communicative function by signaling intention to others. Darwin's research convinced him that emotional expressions are an index of biologically based and, at least initially, precognitive emotional states of mind. Ultimately, these states of mind are "the direct result of the constitution of the nervous system, and have been from the first independent of the will" (1872/1965:66).

A number of evolutionarily and ethologically oriented scholars have built upon Darwin's notion that the emotions are adaptive, psychobiological responses that can be observed from expression and behavior (e.g., Eibl-Eibesfeldt 1980; Ekman 1973, 1980, 1994; Izard 1971; Konner 1982; Lorenz 1966; Nesse 1990; Plutchik 1980, 1993; Tooby and Cosmides 1990). Drawing upon the work of Silvan Tompkins (1962, 1963), for example, Paul Ekman has conducted extensive research on human facial expression. He argues that, while culture and individual experience shape "emblems," "body manipulator actions," "illustrators," "display rules," coping strategies, and the appraisal process, emotions are nevertheless part of an evolved "affect program" that is "set off" in appropriate contexts (Ekman 1980). Ekman states, "Innate factors play a role in accounting for both the characteristics shared by emotions and for those that distinguish one emotion from another. Emotions have evolved for their adaptive value in dealing with fundamental life tasks" (Ekman 1994:17). To support this view, Ekman and his colleagues have gathered impressive evidence indicating that there are strong cross-cultural similarities in facial expression (Ekman 1973). As we shall see, despite his attempts to take cultural variation into account, Ekman's universalist leanings have made him a target for many constructionists.

While Darwin noted that the nervous system played an important role in generating emotion, William James and Walter Cannon were perhaps the two

most seminal figures in establishing the *physiological tradition*. James (1884) argued that “standard” emotions arise from a person’s perception of visceral disturbances: “My thesis . . . is that the bodily changes follow directly the PERCEPTION of the exciting fact, and that our feeling of the same changes as they occur IS the emotion” (1884:189–190). In other words, people feel sad because they cry; they don’t cry because they are sad. Over thirty years later, Cannon (1927), drawing on his research on brain lesions and autonomic nervous system (ANS) impairment in animals, criticized James for overemphasizing the viscera. Instead, Cannon argued, the source of the emotions could be found in the brain in general, and in the thalamus in particular. Because the thalamus was “not associated with cognitive consciousness,” the discharge of thalamic neuronal impulses created the emotional “sense of being seized, possessed, of being controlled by an outside force and made to act without weighing of the consequences” (Cannon 1927:123–124). Despite this critique, it is crucial to recognize that James and Cannon share the assumption that emotions are located in the body. For scholars in the physiological tradition, the emotions can be understood best by examining biological processes.

The James–Cannon dispute has had ramifications both for theoretical debates and for research agendas within the physiological tradition.³ On the one hand, “neurophysiologists” have followed Cannon in focusing their attention on the anatomical structures that underlie the emotions. James Papez (1937), for example, proposed that there exists an emotion circuit comprising the interconnections between the hypothalamus, anterior thalamus, cingulate gyrus, and hippocampus. As Keith McNeal describes in detail in his chapter (see also Armstrong and Laughlin and Throop, this volume), Paul MacLean (1949, 1973, 1993) named a modified version of the Papez circuit the “limbic system,” claiming that it was the primary anatomical system underlying the emotions. This concept guided much future research, though it has been critiqued in recent years (e.g., Armstrong and McNeal, this volume; LeDoux 1986). Nevertheless, limbic structures such as the amygdala have been shown to play a crucial role in the emotions (Aggleton and Mishkin 1986; Damasio 1994; LeDoux 1994, 1995). A great deal of neurophysiological research has followed Cannon (1927) and Kluver and Bucy (1937) in examining emotion processing in various brain areas by studying the effects of cortical lesions, tumors, strokes, and brain stimulation on animals and, when appropriate, on human beings (e.g., Damasio 1994; Davidson 1993; Heilman and Bowers 1990; Kolb and Taylor 1990; Heath 1986; Heller 1990; Kandel *et al.* 1991; Konner 1982; LeDoux 1986, 1995; Plutchik and Kellerman 1986; Pribram 1984; see also Blonder, this volume).

Other scholars in the physiological tradition, who are often referred to as “psychophysiologicals,” have followed James in exploring the extent to which the emotions are differentiated by ANS activity. Much of this research

has been centered around the “specificity debate,” or whether or not various emotions can be distinguished by unique patterns of somatovisceral arousal (Cacioppo *et al.* 1993; Ekman and Davidson 1994; Papanicolaou 1989). On the one hand, many psychophysicists often attempt to demonstrate specificity by comparing two or more emotions on the basis of such measures as: skin temperature, heart rate, respiration, finger temperature, skin conductance, facial temperature, blood pressure, body movement, and so on (e.g., Ax 1953; Funkenstein *et al.* 1954; Ekman *et al.* 1983; Levenson *et al.* 1990; Levenson *et al.* 1992; Zajonc *et al.* 1993). On the other side stand some psychophysicologists who argue that arousal is undifferentiated and, therefore, that emotion differentiation is primarily the result of cognitive appraisals (e.g., Mandler 1984; Schachter and Singer 1962). As we shall see, this latter perspective dovetails with the views of cultural reductionists.

Sigmund Freud is the founder of the *psychodynamic tradition*. Because Freud was primarily concerned with psychopathology, he tended to analyze particular emotions, especially anxiety, rather than developing a systematic theory of the emotions. Nevertheless, Freud made the key move of associating “affect” with dynamic unconscious processes. During the course of his research, Freud’s ideas about the emotions passed through three phases (Rapaport 1953; see also Noy 1982). First, his “discharge theory” equated affect with an unconscious quantity of psychic energy or tension that gave rise to feelings as it increased, decreased, was displaced, and was discharged (Freud 1894/1962). In the second phase of his work on the emotions, Freud’s “safety-valve” or “conflict theory” held that affect was one of the channels by which inhibited drive cathexes were released into consciousness and experienced as feelings (Freud 1900/1965, 1915/1957). And, third, Freud’s “signal function theory” viewed affects as innate structures that were progressively “tamed” by the ego during development. Eventually, the mature ego became able to use affects as signals that provided it with information about the inner workings of the id, thus enabling the ego to respond accordingly (Freud 1923/1960, 1926/1959).

Despite lacking a comprehensive theory of the emotions, Freud’s ideas about affect have stimulated a great deal of psychodynamically oriented work by ego psychologists (e.g., Fenichel 1945; Rapaport 1953), self-psychologists (e.g., Kohut 1977), psychoanalytic anthropologists (e.g., Lindholm 1982; Nuckolls 1996; Obeyesekere 1982; Paul 1990; Spiro 1984), and others (e.g., Marcuse 1962; Reich 1942; Sullivan 1953; see Greenberg 1993). Perhaps the most influential psychodynamic research on the emotions has been conducted by object relations theorists (e.g., Bowlby 1969, 1973; Chodorow 1978; Klein 1975; Kernberg 1982, 1990; Mahler 1968; Schore 1994; Winnicott 1965). These scholars have focused their attention on the role affect plays in mediating the relationship between the self and significant objects/others in the

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environment. In a recent formulation of this view, Otto Kernberg has argued that affects motivate and build upon a child's earliest experiences: "Affects link a series of undifferentiated self-object representations so that gradually a complex world of internalized object relations, some pleasurable tinged, others unpleasurably tinged, is constructed" (1982:907). Similarly, Noy (1982) has suggested that early development is highly contingent upon the ability of the caretakers to respond appropriately to a child's emotional signals. As a result of these object relations, a limited number of innate affect programs are gradually differentiated – physiologically, psychically, and conceptually – into more complex emotions (e.g., attachment into love, aggression into resentment and rage).

Finally, the origins of the *cognitive tradition* can be traced back to Aristotle's writings in the *Rhetoric*. While he acknowledged the existence of a physical component to the emotions, Aristotle placed primary importance upon cognitive beliefs and judgments. Thus, in order to analyze an emotion like anger, Aristotle states that "we must discover (1) what the state of mind of angry people is, (2) who the people are with whom they usually get angry, and (3) on what grounds they get angry with them . . . unless we know all three, we shall be unable to arouse anger in anyone" (Aristotle 1941:1380). Implicit within Aristotle's perspective is the view that the emotions are intentional acts (e.g., one becomes angry about something [external], such as being slighted), involve beliefs (e.g., one has a set of beliefs about honor and proper respect), are based upon evaluations (e.g., one becomes angry after making the judgment that one's honor has been slighted), implicate moral concerns (e.g., one becomes angry because of a violation of a code of honor), and are made within a social context (e.g., one becomes angry because a person of an inferior social station has made insulting remarks about one in front of one's peer group). This type of emphasis on conscious mental activity – intentionality, belief, evaluation, ethical judgment, and appraisal of the social context – is what differentiates a cognitive approach from the evolutionary/ethological, physiological, and/or psychodynamic traditions.

Although Aristotle's cognitively oriented ideas about the emotions influenced a number of subsequent philosophers (e.g., Spinoza 1677/1992; Hume 1739/1978; Brentano 1874/1971; Sartre 1939/1948; see Solomon 1993), not until the decline of radical behaviorism and the beginning of the cognitive revolution in the 1960s did work in the cognitive tradition greatly proliferate – so much so that there is now a journal entitled *Cognition & Emotion*. Contemporary research in the cognitive tradition is fairly diverse, as scholars have examined and debated such issues as: the extent to which arousal/feeling is involved in the emotions (Bedford 1962; Frijda 1986; Mandler 1984; Oatley and Johnson-Laird 1987; Perkins 1966; Schacter and Singer 1962), the role cognitive appraisal plays in emotion processing (Arnold 1960; Buck

1986; de Sousa 1987; Frijda 1986; Lazarus 1984, 1991; Lyons 1980; Smith and Ellsworth 1985; Zajonc 1984; see also McNeal, this volume), the structure of cognitive models of the emotions (Lakoff 1987; Kövecses 1990; Lutz 1988; Wierzbicka 1994), and the existence of “basic emotions” (Lutz 1988; Mesquita and Frijda 1992; Oatley and Johnson-Laird 1987; Russell 1991; Stein and Oatley 1992; Wierzbicka 1994). With regard to this last topic, the most radical school in the cognitive tradition is the “constructionists,” a group that I will examine in the next section.

Biological and cultural reductionism

As noted at the beginning of this introduction, one of the most vexing and contentious debates in emotion theory revolves around the issue of the extent to which the emotions are universal or culturally relative. Many social constructionists, for instance, have sharply critiqued the essentialist, universalizing tendencies – that we might call “biological reductionism” – of the evolutionary/ethological, physiological, and psychodynamic traditions, which tend to be predicated upon the assumptions of Western folk psychology (e.g., Abu-Lughod and Lutz 1990; Geertz 1984; Gergen 1995; Lutz 1988; Lynch 1990a; Solomon 1984; White 1993; Wierzbicka 1994). Consider the following quotes:

These powerful [thalamic] impulses originating in a region of the brain not associated with cognitive consciousness and arousing therefore in an obscure and unrelated manner the strong feelings of emotional excitement, explain the sense of being seized, possessed, of being controlled by an outside force and made to act without weighing of the consequences. (Cannon 1927:123–124)

Because emotions can occur with a very rapid onset, through automatic appraisal, with little awareness, and with involuntary changes in expression and physiology (which I will describe), we often experience emotions as happening to us, not as chosen by us . . . I do not allow for nonbasic emotions. (Ekman 1994:17, 19)

For a constructionist (see Lynch 1990a:5), these passages reflect the Western folk psychological view that an emotion is passive (i.e., something “happening to us”), irrational (i.e., one is “seized, possessed, controlled by an outside force”), natural (i.e., adaptive responses rooted in “a region of the brain”), essential (i.e., a biological state or thing caused by “thalamic impulses” or “involuntary physiological changes”), subjectively felt (i.e., we have an introspective “sense” or “experience” of the emotion), and universal (i.e., since they are natural phenomena, emotions are “basic” – the same in all cultures). Constructionists value deconstructionism as a means of unpacking these underlying premises. Thus, Catherine Lutz (1988, 1990), drawing on Michel Foucault (1980), has argued that emotion discourse has political rami-

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fictions. In North America, women (and, sometimes, minority groups) are often associated with the emotional and therefore viewed as potentially irrational, antisocial, uncontrollable, and dangerous. This link leads to power inequalities, since it “legitimizes the need for control . . . [and] vindicates the distinction between and hierarchy of men and women” (Lutz 1990:87). According to this perspective, women should remain in the controlled, private, passionate realm of the female domestic space, while men should work in the rational, public, male marketplace.

The social constructionist platform has been developed largely in contrast to such Western folk psychological views. According to constructionists, as opposed to being private, natural, essential things that are subjectively felt and universally experienced, emotions are cognitive appraisals that are made and acted upon within an interpersonal social context and on the basis of a culturally relative set of beliefs and values (e.g., Abu-Lughod 1986; Armon-Jones 1986; Averill 1980; Bedford 1962; Besnier 1995; Feld 1982; Geertz 1984; Grima 1992; Harré 1986; Lutz and Abu-Lughod 1990; Lynch 1990b; Mandler 1984; Markus and Kitayama 1994a; Myers 1986; Oatley 1993; Rosaldo 1980, 1984; Shweder 1994; Solomon 1984; White 1993; White and Kirkpatrick 1985; Wierzbicka 1994; Wikan 1990). To demonstrate this point, constructionists often focus on the distinct ways in which emotion terms are interpreted and used. Lutz (1988), for example, has argued that there is no English word which is equivalent to Ifaluk emotion terms like *song* (justifiable anger) and *fago* (compassion/love/sadness), and that only by examining the array of culture-specific meanings and contexts in which these words are embedded can one adequately comprehend them. *Fago* most often takes place in situations of neediness – when one encounters a person who is sick, dying, infantile, socially or physically uncomfortable, and/or without land, food, or kin. The emotion is interrelational (it references a link between two or more people), marks significant relationships (by a person’s willingness to care for another), indexes hierarchical standing (by one’s economic and social ability to *fago* another), involves a moral judgment (that another person is in need and should be helped), and initiates public action (helping another). Thus, while *fago* involves elements of what English speakers call “compassion, love, and sadness,” none of these terms can adequately convey the meaning of the Ifaluk emotion. Lutz’ perspective and opposition to biological reductionism is illustrated by the title of her ethnography, *Unnatural emotions: Everyday sentiments on a Micronesian atoll & their challenge to Western theory*.

How valid is the constructionist critique of the evolutionary/ethological, physiological, and psychodynamic traditions? On the one hand, constructionists have correctly pointed out that these approaches are often based upon Western folk psychology and fall into the trap of biological reductionism. By doing so, social constructionists have been able to move to the forefront a

side of the emotions – their public, interpersonal, contextual, and cultural dimensions – that tended to be neglected by emotion theorists whose ideas were predicated on the aforementioned biases. Moreover, social constructionists have conducted valuable research enabling other scholars to make their theories more culturally sensitive. On the other hand, social constructionists have sometimes made their arguments against biological reductionists in an unnecessarily antagonistic and oversimplified manner (see Edgewater and Hinton, this volume). *To believe that the emotions have a partial physiological basis neither makes one a biological reductionist nor precludes taking cognitive and cultural factors into account.* In fact, ultimately very few people are total biological reductionists. While related assumptions sometimes slip into the work of scholars working in the evolutionary/ethological, physiological, and psychodynamic traditions, most of these individuals are open to exploring the cognitive dimensions of the emotions, particularly through the concept of sensory evaluation and processing (see McNeal, this volume). Some of them have developed complex, multifactorial theories that already take account of cognition and culture (e.g., Buck 1986; Changeux 1985; Damasio 1994; Fessler 1995; L. Hinton 1998; Konner 1982; Lazarus 1991; LeDoux 1994, 1995; Levy 1984; Noy 1982; Nuckolls 1996; Scherer 1984, 1994; Schore 1994; Worthman 1992; see also parts of Ekman and Davidson 1994). Even Paul Ekman, the frequent scapegoat of constructionists, has made a serious attempt to account for individual and cultural variation through his notions of “display rules,” “emblems,” “elicitors,” “appraisal mechanisms,” and so on. We find him acknowledging that “biology may only predispose the organism to acquire these associations [between facial movements and emotion] through common learning experiences” (1980:92) and that “there is considerable amplification and detailing through social learning” (1994:16). As opposed to simply attacking such scholars, constructionists should also note their qualifications, which provide a potential entrée for developing a more biocultural stance toward the emotions.

Finally, I should note that the constructionist approach also has its own pitfalls. First, the strongest form of constructionism makes essentialist assumptions of its own since it dismisses biology and maintains that “emotion is an irreducibly sociocultural product” (Armon-Jones 1986:37; see also Rosenberg 1990 and Hinton, this volume). This type of “cultural reductionism” is evident in statements such as the following:

An emotion is not a feeling (or a set of feelings) but an *interpretation* . . . Anger is not just a physiological reaction *cum* sensation *plus* an interpretation, a cause and certain forms of behavior. It is *essentially* an interpretation . . . The strong version [of constructionism], which I support but am not arguing here, is that an understanding of the conceptual and learned appetitive functions of emotion is all that there is in identifying and distinguishing them from each other and from non-emotions . . . An

emotion is a system of concepts, beliefs, attitudes, and desires, virtually all of which are context-bound, historically developed, and culture specific. (Solomon 1984:248–249)

When constructionists assert that the emotions are “about social life rather than internal states” (Abu-Lughod and Lutz 1990:1–2), they erroneously portray biology and culture as mutually exclusive and force themselves into an extreme position that denies any substantive role to the body in generating the emotions (Leavitt 1996; Lyon 1995; Perkins 1966). This position makes it difficult for scholars like Lutz (1988) to explain in a complex manner why emotions such as *fago* and *song* are often associated with bodily feeling (i.e., the Ifaluk notion of “our insides” [*niferash*]). The constructionists’ anti-body bias is due both to their desire to critique biological reductionism and to their emphasis on language and discourse which, while important, ignores crucial non-verbal processes and behavior (Lyon 1995; Reddy 1997; Scherer 1994; see also Besnier 1990).

However, *cultural reductionism is neither a necessary entailment of taking a social constructionist stance nor entirely characteristic of most work in this tradition*. As Claire Armon-Jones (1986:38) has noted, a weaker version of constructionism exists which acknowledges that bodily feeling contributes to emotional experience. Even some of the scholars who espouse a strong version of constructionism sometimes make important, albeit brief, qualifications about their views: “the biological basis of human experience, including that termed emotional, is not denied here. Rather, the point has been to critique essentialism” (Lutz 1988:210); “emotional discourses . . . seem to have some affective content or effect . . . emotions are also framed in most contexts as experiences that involve the whole person, including the body” (Abu-Lughod and Lutz 1990:10, 12); and “Emotions, as moral appraisals, are grounded in the nature of our bodily selves, securing for them their bedrock commonsense character” (Lynch 1990a:14). Other constructionists provide a more explicit role for feeling in their models of emotion (e.g., Averill 1980; Desjarlais 1992; Edgewater, this volume; Heider 1991; Rosaldo 1980, 1984; Shweder 1994; Wierzbicka 1994). Michelle Rosaldo, for example, defines emotions as “thoughts somehow ‘felt’ in flushes, pulses, ‘movements’ of our livers, minds, hearts, stomachs, skin. They are *embodied* thoughts, thoughts seeped with the apprehension that ‘I am involved’ ” (1984:143). As we shall see, such a conception of the emotions as self-implicating embodied thoughts provides an opening for the development of a biocultural approach.

Biocultural approaches to the emotions

Given that most scholars in the evolutionary/ethological, physiological, and psychodynamic traditions are willing to grant a role, sometimes an important