GETTING UNDER MY SKIN: WILLIAM JAMES ON THE EMOTIONS, SOCIALITY, AND TRANSCENDENCE

by John Kaag

Abstract. "You are really getting under my skin!" This exclamation suggests a series of psychological, philosophical, and metaphysical questions: What is the nature and development of human emotion? How does emotion arise in social interaction? To what extent can interactive situations shape our embodied selves and intensify particular affective states? With these questions in mind, William James begins to investigate the character of emotions and to develop a model of what he terms the social self. James's studies of mimicry and his interest in phenomena now often investigated using biofeedback begin to explain how affective states develop and how it might be possible for something to "get under one's skin." I situate these studies in the history of psychology between the psychological schools of structuralism and behaviorism. More important, I suggest continuity between James's *Psychology* and recent research on mirror neurons, reentrant mapping, and emotional mimicry in the fields of clinical psychology and cognitive neuroscience. This research supports and extends James's initial claims in regard to the creation of emotions and the life of the social self. I propose that James's work in the empirical sciences should be read as a prelude to his metaphysical works that speak of a coordination between embodied selves and wider environmental situations, and his psychological studies should be read as a prelude to his reflections on spiritual transcendence.

Keywords: behaviorism; embodied cognition; homeostatic regulation; mimicry; mirror neurons; pragmatism; social psychology; social self; transcendence

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John Kaag is Assistant Professor of Philosophy at the University of Massachusetts, 102 Olney Hall, Dept. of Philosophy, University of Massachusetts, Lowell, MA 01854; e-mail John_Kaag@uml.edu.

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James's Philosophy of Mind: A Mediating Movement

In "The Present Dilemma in Philosophy," William James provides a quick rendering of the history of philosophy. In broad strokes, he separates this genealogy into two basic camps, two prevailing philosophic temperaments: the "rationalistic" and the "empiricist" (James 1907, 12). These temperaments are described and presented in a sort of laundry-list style:

Rationalistic (going by the 'principles')	Empiricist (going by the facts)
Intellectualistic	Sensationalistic
Idealistic	Materialistic
Optimistic	Pessimistic
Religious	Irreligious
Free-will-ist	Fatalistic
Monistic	Pluralistic
Dogmatical	Skeptical

Pragmatism attends to both of these seemingly antagonistic temperaments (1907, 12). His is a philosophy of mediation, a type of mediating third between the two opposing dispositions of the philosophic canon (1907, 13). Its middle-of-the-road position often leaves this pragmatist open to the hit-and-run tactics of philosophic criticism; he is neither rational enough for the rationalist nor empirical enough for the empiricist.

James's "divided self," his tendency to reflect the tenets of rationalism *and* empiricism, seems to underpin *The Principles of Psychology* (1950) and grounds his discussion of the emotions and the self. In light of current work in the cognitive sciences, I argue that the "two-faced" character of pragmatism, often cited in critical readings, is aptly suited in a description of mental life. I suggest that this description can serve as a kind of bridge between certain schools in the history of psychology. In particular, I look at the way in which James seeks to mediate between the psychological interiority highlighted in structuralism, born from the rationalist's conception of mind, and the external character of mental phenomena emphasized in behaviorism, the logical extension of the empiricist's research program.

James's description of the emotions as developing in the interaction between the interiority of the feeling subject and the organism's objective behavior reflects the mediating character of his psychological modeling and of his philosophy as a whole. His description of the social self and reflex action underscores a similar mediation and provides a basis for extending the emotions into the social realm. The self, for James, is a process, a continuous bridging between the empirical conditions of the self and what the rationalists tend to call the individual subject. I highlight the way in which James's hypotheses on the emotions and the social self have been

supported and extended by modern physiology and cognitive neuroscience. His account of the emotions seems to stand as a descriptive model for what recently has been described by many physiologists as the phenomena of biofeedback and neural reentry. Similarly, his notion of the social self—its situation and formation—is supported by contemporary investigations of mirror neurons, social mimicry, and interactive communication. Finally, I propose that James's work in the empirical sciences should be read as a prelude to his metaphysical works that speak of a coordination between embodied selves and wider environmental situations. That is also to say that his psychological studies should be read as a prelude to his reflections on spiritual transcendence.

The Emotions: Interactive Becoming

In framing the pragmatic account of the emotions, it is necessary to first describe the prevailing psychological model of James's day. Wilhelm Wundt developed his structural model of psychic affects in the early 1870s.

> If we could see every wheel in the physical mechanism whose working the mental processes are accompanying, we should still find no more than a chain of movements showing no trace whatsoever of their significance for mind. . . . [All] that is valuable in our mental life still falls to the psychical side. (Wundt 1896, 446)

Wundt's sentiment concerning mental activities suggests a deep-seated commitment to preserving the modern philosophic notion of mind and body as being separate, if not necessarily opposed. The founder of psychological structuralism accepted Baruch Spinoza's concept of psychophysical parallelism, that for every internal state there is a corresponding external behavior. Understanding these external and embodied signs, however, could never deliver one to a comprehensive knowledge of mental activities; seeing the wheels in the physical mechanism was, on his account, wholly insufficient to address psychic phenomena. Wundt's methodological move to introspection speaks to the inadequacy of a strictly empirical psychology. The structuralist's account of the emotions rested on the belief that an organism feels a given emotion *prior* to any corresponding physical expression or conception of that emotion as such.

It seems accurate to say that James brings into question the mere parallelism of external behavior and internal motional state. This questioning, however, does not necessarily reflect the sort of biological reductionism and materialism that characterizes the work of empiricists such as David Hume, George Berkeley, and B. F. Skinner. It will become clear how stark the contrast is between James's interactive model of the thinking self and that of the modern behaviorist.

In *Psychology*, James addresses the "coarser" and the "subtler" emotions in turn. His presentation is, at least in part, strategic. James believes that the coarser emotions, extreme in their form and expression, demonstrate

the functionalist's stance that the "bodily changes follow directly the perception of an exciting fact, and that our feeling of the same changes as they occur IS the emotion" (James 1950, 494). For James, the search for a strictly mental emotion comes up empty-handed; the internal state of the frightened individual is inextricably bound to the embodied act of fleeing the site of fear. That is, being afraid is not antecedent to the expression of fear. In underscoring the nature of coarse emotions, James writes: "If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind, no mind-stuff out of which the emotion can be constituted, and that a cold and neutral state of intellectual perception is all that remains" (1950, 451). Whereas a structuralist would suggest that one cries because he or she is sorry, James insists that it is "more rational" to say that "we feel sorry because we cry" (1950, 450).

Initially, such a theory seems to stand against common sense. James, however, asserts that the way that one comes to understand the emotions of others, and emotions more generally, is by correlative actions of the organism. Watching two men argue in a nearby cafe, a bystander assumes that the men are angry, irritated, upset. This would be a "safe" assumption. Evolutionarily speaking, bystanders who fail to make such inferences place themselves, very literally, in unsafe positions.

An obvious objection surfaces in this discussion: Is it not the case that one *knows* she/he is, in her/his own person, angry before any physical manifestations of violence are expressed? James's response might be twofold. First, what one "knows," on James's account, is not a practical knowledge of anger, for it has not yet shown itself as such. His second response might be more complex and is undoubtedly more satisfying. He observes: "Each fit of sobbing makes . . . sorrow acute. Everyone knows how panic is increased by flight and how giving way to the symptoms of grief and anger increases these passions themselves" (1950, 462). It seems right that demonstrable behavior does in some way determine the emotions that are so often framed as internal states.

James leaves open a vital question, however, separating himself from the strictly empirical accounts of the mind. The questions remain: Who, exactly, is behaving? Who controls the sobbing that controls the sorrow? On this note, the way in which this emotional determination occurs needs to be distinguished from the strict, deterministic way described by the behaviorists of the 1950s. In assuming a more empirical approach to the emotions, James does not abandon the "free-will-ist" disposition of the rationalist or the inner freedom of the structuralist. The determination of the emotions, for James, is realized *between* the internal and the demonstrable, *between* freedom and necessity, *between* the strictly private and the simply social. They are equally determined by external reactions and internal affects; they are determined in tandem.

For researchers such as Skinner, however, this determination of the emotions by the empirical causes is one of logical identity; observable action *becomes* the whole of the mental schema. Felt affect drops out of the Skinnerian description of the mind. In *About Behaviorism* Skinner asserts that the mentalist's problem that James sought to mitigate can be wholly "avoided by going directly to the prior physical causes while bypassing intermediate feelings or states of mind . . . [by] consider[ing] only those facts which can be objectively observed in the behavior of one person in his relation to his prior environmental history" (Skinner 1974, 13). Skinner concedes that one may say that he "feels like going," that he "wants to go"; these testaments to an inner life, however, are purely accidental in the behaviorist's view of psychic life. "Whether or not a person feels or otherwise observes the likelihood of a response, the simple fact is that at some point a response occurs" (p. 14). If a detailed investigation of the particular chain of physical reactions can be conducted and is found to be causally "lawful," "nothing is lost by neglecting the supposed nonphysical link" (p. 15). In "The Uselessness of Inner Causes," Skinner derides the mentalist sensibility of the Western canon, commenting that the exploration of the emotional and motivational life of the mind has been described as one of the great achievements in the history of human thought, "but it is possible that it has been one of the great disasters" (p. 169). The traditional view of the mind has been disastrous precisely to the extent that it has the appeal of the arcane and magical rather than of the scientific and falsifiable. To avoid another "disaster," Skinner arrives at the firm belief that "What an organism does will eventually be seen to be due to what it *is*, at the moment it behaves, and the physiologist will someday give us *all* the details" (p. 249; emphases added).

Although James's examination of emotional acts may provide a kind of ground for Skinner's project, it is necessary to identify the ways in which their conclusions part philosophic company. James assumes a behavioral perspective as an attempt to balance and extend, but not wholly eliminate, the value of an internal psychic life. Avoiding the behaviorist's reductive approach, James seeks to round out the concept of emotions, a concept that had been traditionally described as linear and unilaterally causal. James expresses his unwillingness to simply dismiss the existence of felt affects. His confidence in ultimate and comprehensive behavioral models is halfhearted at best. "To sum up, we see the reason for a few emotional reactions; for others a possible species of reasons can be guessed; but others remain for which no plausible reason can be conceived" (James 1950, 484). According to James, the emotions should be categorized according to the purposes of a particular inquiry. Under certain circumstances, an internal account seems appropriate; under others, a behavioral schema seems more suited. In the end, James adheres to the conjunctive relation of pragmatic inquiry—that is, he allows for the possibility that internal states and external behavior coexist and, in truth, coevolve.

Homeostatic Regulation, Neural Dynamics, and the Creation of Emotion

James's observation that emotional life emerges in the coevolution of internal affects and external behavior sets the stage for an extensive investigation by contemporary biologists, physiologists, and psychologists into the phenomenon that is generally referred to as biofeedback, a more specific name for a general form of homeostatic regulation. Barbara Brown describes the phenomenon in the following manner:

> Bio-feedback is simply the feedback of biological information to the person whose biology it is. . . . There are perhaps millions of individual feed-back systems in the human body . . . which operate by their ability to detect changes in the environment of their operation, and then make internal adjustments so that their functions remain both optimal and continuously appropriate to the demands of the environment. (Brown 1974, 4)

Experimenters often use the example of a thermostat in discussing the cybernetic aspects of this sort of homeostatic process; the machine both acts and reacts (Jenks 1977, 19). A thermostat on a given heater both affects and is affected by the temperature of its environment. The forthcoming discussion of neural mapping suggests that organic feedback takes on a similar, although far more adaptive and creative, form. Information about the external environment is sensed by any of the five senses and relayed to the control center, often considered the brain, where it is integrated with other relevant information, and when it is significant enough, central control initiates a command for appropriate body reactions. This basic loop between input sense, brain process, and output reaction is partitioned again and again by intermediary loops that function in corresponding fashion. Organ system maintenance and cell regulation can be modeled along similar lines (1977, 5). Indeed our bodies are *in* an environment and *are* the environment for internal structures-systems. As W. B. Cannon noted in the early part of the twentieth century, the continual execution and adjustment of certain bodily states is necessary in maintaining a type of homeostasis in and with an organism's environment (Cannon 1929, 43).

We examine the interaction between the organism and its environment in the next section. First, however, another aspect of intrapersonal feedback deserves our attention. In his later writings, James explores the possibility of religious experience and in so doing stumbles across the phenomenal states of the mystic and the yogi. It is not necessarily interesting that James identifies these individuals as gaining access to wider religious sphere, but of interest in our present discussion is that these individuals enter the "religious loop" only insofar as they are acutely aware of the biological looping that is occurring *within* their bodily forms. Brown and others have identified the way in which yogis "learn" to slow their hearts and even stop them for short periods (Brown 1974, 216). The practitioners describe this process as a twofold calming of the emotions. The slowing of the heart

calms the subject, who, in turn, slows the heart. In this case, it is relatively simple to imagine the way in which this feedback deepens the yogi's affective state. Remember that James, intimately familiar with depressive states, employs the example of sobbing to make a similar point. One sobs, and is sobbed; sadness deepens with every stomach-wrenching wail. One controls and is controlled by the outward action of the organism.

This understanding of emotional feedback is reflected in more recent medical studies on the management of pain through psychophysical practices (Green 1979, 250). James seems to foreshadow this empirical work, writing, "If we wish to conquer undesirable emotional tendencies in ourselves, we must assiduously and in the first instance cold-bloodedly, go through the outward movements of those contrary dispositions which we prefer to cultivate" (1950, 463). James acknowledges that this attempt to fully control one's emotions is a futile one, especially in a naturalized context. This being said, he highlights the experience of theatrical actors who feel the emotion of the stage only through the playing and acting out of a given affect. He implies that this intrapersonal feedback would, in turn, give rise to more sincere performances. James seems to suggest the importance of facial feedback in the embodiment of the emotions, and contemporary neurological studies lend credence to this stance. In *The Feeling of What Happens* Antonio Damasio identifies the face, skull, neck, oral cavity, and pharynx (coincidentally all structures intimately conjoined with the expression of the emotions) as providing a disproportionately large amount of input to the spinal cord and the rest of the central nervous system. Echoing James's suspicion, Damasio writes, "We use the spinal cord both to enact a part of some emotions and to bring back to the brain parts of the enactment of these emotions" (1999, 287). This large amount of feedback speaks to the depth of internal emotional feeling and the maintenance and revision of complex emotional states.

As a related aside, it is worth noting what James hypothesizes in regard to the physiological basis of the deepening and ingraining of emotional states. Anticipating Donald Hebb's rule developed in the 1940s, James suggests that neural structures and patterns of activation operate under the influence of more global tendencies. He writes in 1892 that "the amount of activity at any one point in the brain cortex is the sum of the tendencies of all other points to discharge into it. . . . When two brain processes have been active together in immediate succession, one of them on recurring, tends to propagate the other" (James 1950, 253). Here, James begins to point to the physical root of feedback and neural associations that ground the development of emotional meaning.

Neither simple thermostatic feedback nor simple Hebbian associations can account for the complex character of the organic systems described above. Cognitive scientists have suggested that the coordinated feedback and creative adjustments of neural systems operate by way of coordinated neural mapping. As Gerald Edelman notes, such a mapping depends on

the anatomical precondition of "the remarkable massively parallel reciprocal connectivity of the brain areas" (1997, 229). To use Edelman's language, "neural reentry" refers to a process by which functionally related cortical areas (such as the sensory motor cortex and linguistic/semantic nodes) coordinate and "get in time" (p. 236). The "parallel reciprocal connectivity" that characterizes the nervous system cannot be described by mechanical feedback but as the harmonization of living systems that are receptive and projective—adapt and grow—in tandem and over time. This description is admittedly vague. I will make an attempt to clarify.

The biochemistry that underpins this process of neural mapping is complex—not just in the vernacular sense of being difficult to understand, but analytically complex. This complexity ought to be apparent to us when we consider the billions of neurons that compose the cortical shell of the human brain and think about the connectivity and dynamics of this shell and the dense connectivity of the brain core. How are functionally separate areas of the brain connected? I will not answer this question in any detail but only try to make several instructive gestures. The coordinated firing (electric impulses) of neurons depends on autoreceptors that regulate the exocytosis of neurotransmitter on the presynaptic plasma membrane. The transmission of electrical impulse from one neuron to another depends on the release of a neurotransmitter across a small space between post and presynaptic membranes called the synaptic cleft. The autoreceptor serves in the feedback loop in signal transduction by detecting its own neurotransmitters and, according to the concentration of neurotransmitters, encouraging or inhibiting their release. The autoreceptor operates, at the neuronal level, in both an active and receptive capacity, acting to regulate the release of neurotransmitter but also remaining receptive to the concentration of this selfsame chemical group. The dynamic connectivity of various brain areas depends on the feedback and microconnectivity of neuronal groups and individual neurons.

Studies of neural activation indicate that, because of this massive complex of interconnected feedback systems, neural activation and development is not determined by preset or mechanistic parameters. Instead Edelman's understanding of reentry defines an emergent process of growth and harmonization whereby neural systems set the limiting and enabling conditions on the related areas of activation. On this point, the most important distinction to be made between linear feedback and coordinated neural mapping is the fact that neural dynamics have a constructive and reconstructive function rather than the merely corrective one that is demonstrated in feedback. Neural dynamics are constructive in the sense that they coordinate functionally separate neural maps in developing new activation patterns and in reestablishing and refining preexisting ones. Brain activation, connectivity, and development appear to reflect the evolutionary and imaginative dynamics that proceed from past forms while extending them in novel ways.

Widening Circles: Bodily Comportment and James's Social Self

To this point, we have addressed the intrapersonal loop between internal states and external behavior, between an actor's felt experience and the performative aspect of his feeling. The examples of the yogi and the mystic are helpful yet anomalous descriptions of the affected/affecting character of the emotions. The experience of the yogi is anomalous insofar as the practitioner's emotions arise in a controlled environment, divorced from the social context of everyday life. The example of the actor seems more suited in our description of the phenomenology of the emotions. The actor's felt impulse determines and is determined by his given action, but this action also determines and is determined by the actions and impulses of others. The emergence of the human affect is always already on the stage of social life. Before she knows it, the subject is interacting with an omnipresent audience; indeed, before she knows it, she is adjusting in this interaction and feedback.

The pragmatists underline the remarkable similarity between intrapersonal and interpersonal feedback. To highlight this similarity it is appropriate to present James's notion of the emotions in tandem with his idea of the social self as a form of bodily comportment. In *The Duality of the Mind* (2002) Ronald Sun surveys the project undertaken by cognitive neuroscience to create computational and biological models to explain how a living-feeling agent arises as, and within, social relations. Sun opens with a discussion of bodily "comportment" as defined by the phenomenological movement of the early twentieth century, by such authors as Edmund Husserl, Martin Heidegger, and Maurice Merleau-Ponty. He explains how the idea of comportment echoes the philosophic and phenomenological sensibilities of earlier thinkers such as Franz Brentano and James. The term is meant to capture the prereflective interaction between an organism and its environment and the way in which this interaction provides the limiting and enabling conditions of subjectivity (Sun 2002, 143). Subjective consciousness is not over or above the world but rather, at all times, in the thick of things. Mental life is only and always found in a particular individual, but also in a particular worldly situation. Heidegger, like James, rejects the subject/object distinction of modern philosophy and comments that being in the world and "comportment has the structure of directing-oneself-toward and being-directed-toward" (Heidegger 1962, 320). That is to say, in the real world, one's emotions affect and are affected by the conditions in which one finds oneself. Sun notes that computational models are realistic only to the extent that they are relational and multimodal, only when they try to take account of the worldly and experiential conditions in which consciousness can arise.

James anticipates and sets the stage for phenomenologists and neuroscientists in reopening a question that had been prematurely closed by structural

psychologists and Cartesian philosophers: Our bodies themselves—are they simply ours or are they us? More simply put, is the human mind to be regarded as subject or object? The answer for James is typically two-sided. An individual moves, but also is moved in certain phenomenological and social situations. When James suggests that "a man's self is the sum total of all that he can call *his*," he is highlighting the intersubjective emergence of a feeling-consciousness between the human organism and "*his* ancestors, *his* friends, *his* reputation and *his* works . . . *his* wife and *his* children." If these points (and persons) of interaction "wax and prosper, he feels triumphant; if they dwindle and die away he feels cast down" (James 1950, 291). In light of James's extensive understanding of human evolution, one has to wonder about the relation of the individual to his ancestors. One thing, however, is certain: These relations are not solely his to control or possess, but rather his to respond to and his to encounter. James seems to recognize that the internal emotional state of a person is affected not only by the external postures, gestures, and actions of oneself but also by those of other individuals. We are undoubtedly conditioned to act upon given social circumstances. When these circumstances change, however, we are forever affected, if only ever so slightly.

On more than one occasion, James expresses the belief that the inner lives of things, and particularly selves, can be experienced in immediate and felt relation. In search of the shared inner life of individuals, James turns a discerning eye on the interaction (the action-between) and conversation (the turning-together) of individual bodies. He seems to suspect that the outer effects of being-with-others hold the key to the understanding of shared internal states. James highlights the abilities of a physiognomist in fleshing out his understanding of empathy:

> This man (a physiognomist) . . . had not only made very accurate observations of human faces, but was very expert at mimicking such as were in any way remarkable. When he had mind to penetrate into the inclinations of those he had to deal with, he composed his face, his gestures, and his whole body, as nearly as he could, into the exact similitude of the person he intended to examine; and then carefully observed what turn of mind he seemed to acquire by the change. (James 1950, 464)

The inextricable connection between the mind and body is once again made explicit. In this case, however, another, perhaps more mysterious, suggestion is being expressed. He implies that the body is always situated in a social context, a context whose inner nature can be "opened up" through embodied interaction. The internal states of others can in some way become our own through bodily conversation.

This turning-together of bodies is at once a meeting of the minds. Bodies seem to hold a type of mediating position between the internal states of the individual and between internal states of various individuals. This mediation is both for-ourselves and for-others. Citing the work of his colleague Gustav Fechner, James elaborates:

> One may find by one's own observation that the imitation of the bodily expression of a mental condition makes us understand it far better than the merely looking on. . . . When I walk behind some one I do not know and imitate . . . his gait and carriage, I get the most curious impression as feeling as the person himself must feel. (James 1950, 464)

Contemporary theorists have extended these remarks and have aimed to identify the pervasive and unconscious character of social mimicry, its deep biological basis, and its implications for sociality, cooperation, empathy, and procedural memory. A brief look at this literature seems warranted. As Damasio notes, James did not have the scientific wherewithal to flesh out many of his hypotheses (Damasio 1995, 129). It is in some respects our responsibility to either put some meat on the bones of his theories or let them lie as deservedly dead. In this case, some recent work seems to revive his initial observations.

Getting Under My Skin: Mimicry, Mirror Neurons, and Sociality

James's discussion of mimicry usually is couched in terms of the conscious human manipulations of an actor or researcher. Biologists recently have broadened the scope of mimicry, noting the prevalence and purpose of mirrored activity in the animal kingdom at large. This sort of behavior is framed as both unconscious and automatic. Echoing James, researchers have begun to draw the connection between this activity and the prosocial behavior found in most primates and especially human beings (Giles and Powesland 1975). Individuals tend to mirror the postures and mannerisms of those with whom they interact. This performative doubling occurs most poignantly between intimates but also between strangers (Chartrand and Bargh 1999, 893).

Before moving on, it seems appropriate to recognize a critical voice among this scientific research. One might claim that the studies on facial and social mimicry can lead to a reductionism in which felt emotional states are removed by way of a researcher's description. An individual can react to an environment, and even mirror its patterns and structures, without positing a corresponding life or agency to this social or phenomenological situation. In these models, the other is not necessarily granted agency but merely observed as changing, as being naturally volatile. This is a criticism often brought against "the scientific" James. I argue in the following section that a closer look at James's metaphysics may provide a type of answer to such critiques. For now, however, I continue to address the contemporary research that seems to be conducted in the spirit if not the letter of James's research project. Such research also begins to address such concerns.

In a move to connect external mimicry with felt and shared internal states, Rolland Neuman and Fritz Strack observe that people report assuming the moods of others who participated in the same social interaction,

even when these individuals are for the most part unrelated (Neuman and Strack 2002, 211). The assumption of these moods is correlated with a disposition to mimic the facial expressions of compatriots. In 2002, Marianne Sonnby-Borgstrom hypothesized that a correlation existed between automatic mimicry and emotional empathy, that is, the ability to feel the felt emotional state of another individual. Differences between subjects high and low in emotional empathy were investigated. The parameters compared were facial mimicry reactions, as represented by electromyographic (EMG) activity when subjects were exposed to pictures of angry or happy faces, and the degree of correspondence between subjects' facial EMG reactions and their self-reported feelings. The comparisons were made at different stimulus exposure times in order to elicit reactions at different levels of information processing. Her results are interesting in light of the discussion of shared emotional states and external performance:

> The high-empathy subjects were found to have a higher degree of mimicking behavior than the low-empathy subjects, a difference that emerged at short exposure times that represented automatic reactions. The low-empathy subjects tended already at short exposure times to show inverse zygomaticus muscle reactions, namely "smiling" when exposed to an angry face. The high-empathy group was characterized by a significantly higher correspondence between facial expressions and self-reported feelings. (Sonnby-Borgstrom 2002, 433)

She found no significant difference between the high- and low-empathy subjects in their reported feelings when presented a happy or an angry face. She concludes that "the differences between the groups in emotional empathy appeared to be related to differences in automatic-somatic reactions to facial stimuli rather than to differences in their conscious interpretation of the emotional situation" (2002, 433).

The mechanism by which external/social mimicry translates into shared internal dispositions remains somewhat unclear but has been slowly brought to light in the studies of mirror neurons by Giacomo Rizzolati and others in the field of cognitive neuroscience. Victorio Gallese identifies a set of neurons in the premotor cortex of humans and some primates that provide the capacity for near-instantaneous response on an unconscious level both to external and internal cues. Through a mapping of particular brain areas, researchers discovered nerve nets that were activated both by the subject's observation of meaningful action and by the actual performance of the action. It could be said that the social realm, in which emotions are embodied and action takes place, very literally gets under one's skin. In a colloquial sense, neuronal activation does not make a distinction between the actions and intentions of another and the actions and intentions of oneself. Interestingly, the visual stimuli most effective in triggering these mirror neurons were the subject's observations of actions "in which the experimenter's hand or mouth interacted with objects" (Gallese 1996, 593). From an evolutionary perspective, this should come as no real surprise; the

mouth and hands are obviously crucial in the acquisition of food and integral to the sociality of most mammals.

The crucial point here is that these neural nets are unique in their ability to respond to, to be activated by, and to anticipate what comes next through the subject's observations of complicated procedures. Again, to speak loosely, the neurons anticipate the agency of others just as they would anticipate the agency of oneself. E. Kohler's recent studies reveal that neurons in the premotor cortex fire and are suppressed when an animal performs a specific action and when it hears a related sound; most of the neural nets discharge when one observes or hears the actions of another (Kohler 2002, 846). This study highlights the way in which the emotions and the self, traditionally framed as intrapersonal and insular, might arise in and through that body's interaction with the social sphere. It is not too great a conceptual leap to say that the way one feels often corresponds to the collective feeling of his social circle. One also feels, to a certain extent, the way one is felt about. Notice that the self does not *get* recognition, *have* recognition, or *enjoy* recognition. The self *is* recognition.

Reflex Act and "Subjectivity" of the Situation

Earlier I voiced the criticism that James fails to recognize the living agency of the environmental situation in which *human* agency, its mind and emotions, emerges. A certain reading of James's metaphysical texts may shed light on the seemingly problematic and seemingly reductionist sentiments in *Psychology.* Here, James comments that there are two distinct, yet related, ways of investigating the psychic state: "First, the way of analysis: What does it consist in? What is its inner nature? Of what mind-stuff is it composed? Second, the way of history: What are its *conditions* of production, and its *connection* with other facts?" (Kohler 2002, 913)

In the previous sections I attempted to show how an investigation of the internal reflex states, in particular those that affect the emotions, leads naturally to a discussion of the conditions—historical and social—in which this emotional self arises. The intrapersonal reflex of emotional biofeedback is always enmeshed in a living, breathing, active environment that unfolds in ever-widening reflex loops. In other words, biofeedback and neural mapping are already involved in a rough mirroring and a partial mimicking of an environment. In his aptly titled "Reflex Action and Theism" James alludes to the perfect fit between the reflex act of the human body and the reflexive pulse of the world in which this body comes to pass. He asks his listener to recognize the expansive cycling, affected and affecting, of the world "whose form is no higher than that of the life that animates his spinal cord—nay indeed, that animates the writhing segments of any mutilated worm" (James 1984, 559).

Without succumbing to idealism, modern science has attempted to shake its reputation of reductionism by highlighting the way that the reflexive

looping of organisms and the universe at large are both complementary in form and profoundly interpenetrating. In a comment that usually is regarded as a moment of religious hand-waving, James suggests that the human ability, and indeed propensity, to converse with the "subjectivity" of his situation must be acknowledged as one of the few divine commandments: "To co-operate with . . . creation by the best and rightest response seems all that he wants from us. In such co-operation with his purposes, not in any chimerical speculative conquest of him (or his creation), not in any drinking of him up, must lie the real meaning of our destiny" (James 1984, 562). In the spirit of James's work, it seems fitting that the empirical and phenomenological studies of the human organism, its mind, and its emotions aim to describe the way in which the human is "co-operating" with the dynamic situation in which it finds itself. This situation—either natural or social—may provide a key, or at least a mirror, to understand our own internal states. A study of this embodied situation may reveal the unique character of mental and emotional agency. Indeed, this may be the case, for it is slowly becoming clear that the agency of the world, in all of its particularity, is continuous with, although not identical to, our own.

Interestingly, James does not seem to restrict the realm of mind to the human, often alluding to the intimate connection between the nonhuman and human (James 1988, 139). It is difficult to determine the extent to which James wants to attribute the character of the "mental" to this internal meaning of otherness, but he seems to suggest that such an attribution *might* be in order. He is rightfully hesitant, because he understands the ontological implications of such a philosophic move. In 1873 he writes: "[Consider the] sight of elephants and tigers at Barnum's menagerie whose existence, so individual and peculiar, yet stands there, so intensely and vividly real, as much as one's own, so that one feels again poignantly the unfathomableness of ontology, supposing ontology to be at all" (James 1920, 224). For James, there is a separateness but also an uncanny closeness that is achieved in moments of natural encounter.

The empirical studies addressed in the previous section help to transfigure the status of the social situation from an alien *it* to an intimate and pervasive *thou*. James the scientist is deeply interested in this *thou* but seems ill-equipped to give a fuller empirical account of its nature. James the mystic is not only interested in the character of this *thou* but also deeply concerned by the manner in which this wider subjectivity is intimate, accessible, and forever related to a particular human self. Anticipating Martin Buber and others, James writes, "The Universe is not a mere It to us, but a Thou, if we are religious; and any relation that is possible from person to person might be possible here" (James 1979, 31). It seems that we have reached a junction at which point both the empiricist and the metaphysician can catch a glimpse of this *thou* and recognize the way in which this *thou*, this *you*, is already in a certain sense under my skin.

I Feel for You: Jamesian Transcendence and the Grounding of Religion

In his analysis of James's metaphysical works, Richard Gale notes that the I-Thou relationship described above is the basis of James's understanding of metaphysical transcendence. In Gale's words, James's rendering of mystical perception is "a very heightened and intensive form of the I-Thou experience" in which a pervasive intimacy is achieved between two selves (Gale 1999, 252). In this experience, like the experiences in which mirror neurons played a central role, the barriers between internal life and various behavioral externalities are momentarily and largely overcome. A particular harmony is established. A more expansive consciousness is achieved. In Buber's words, this expansive consciousness exists as a twofold movement that both "sets at a distance" and "brings into relation" (Buber 1957, 87). James's study of social psychology and physiology led him to the belief that the "self" is constructed through this movement and actualized only by partially losing itself—and then finding itself again—in meaningful moments of transaction with the world. Our investigation of more recent cognitive neuroscience has pointed toward the physiological basis of this transaction.

While the fellow-feeling involved in the I-Thou experience may be most pointedly expressed in social interaction, James wishes to extend it to our encounters with what he would later describe in 1907 as the "pluralistic universe," the universe in its variety of forms. In 1899, James merely gestured to this fact, writing to his wife concerning the fish in the Aquarium: "I wish we had them as children—such flexible intensity of life in a form so inaccessible to our sympathy." James does, however, in a certain sense, and against his own protestations, sympathize with these fish—that is, he "feels-for" something radically Other. There exists an uncanny intimacy between the psychologist and these swimming organisms.

The expression of this unique perspective, along with various other comments, places James squarely among a cohort of pantheists and nature mystics. I believe that James regarded this as fairly good company. His understanding of mystical transcendence, however, is doubly natural. First, echoing the standard formulation of nature mysticism, James believes that a transcendent harmony can be achieved in the rapturous immediate experience of nature. It is in this sense that James is interested in the way that one may be wholly *affected* and *effected* in our natural and social encounters. In experience, nature gets under our skin. James puts this beautifully when he writes: "There is a state of mind, known to religious men, but to no others, in which the will to assert ourselves and hold our own has been displaced by a willingness to close our mouths and be as nothing in the floods and water-spouts of God" (James 1997, 228).

Second, James's study of physiology indicates that there must be something in the natural embodiment of an individual that makes this rapturous

union possible. There is something rapturous, or at least emergent, about nature. Nature's rapture is *always already* under our skin. This is not, necessarily, to succumb to a type of material reductionism that claims that spiritual transcendence is a mere function of mechanical biological processes. Instead, it suggests that spiritual transcendence, the ineffable awareness of and identification with our social and natural world, might be traced to the ineffable, or at least massively complex, dynamics that quietly underpin our natural embodiment.

James, unlike Meister Eckhart or Zhuang Zi, approaches the topic of mysticism and religious experience by way of his studies of the modern empirical sciences. Like any good empiricist, he begins all of his investigations with a careful analysis of sensible experience. What he finds in this experience is not the fragmented and disjointed assemblage of perceptual occurrences but rather a type of experiential unity that occasionally culminates in moments of profound and thoroughgoing harmony with various aspects of the world. Gale rightly notes that James's mysticism is not a monistic one in which an individual mind is dissolved in a single "mother-of-the-sea consciousness." Indeed, the word *dissolve* is anathema to a description of James's pluralism; he does not allow that there is ever a perfect numeric identity between individuals or between an individual and the Whole. Instead, there is the experience of "being-more," the cognizance of being part of another consciousness. Transcendence implies the drawing out of the self beyond the narrow confines of self-possession into a type of intimate transaction. That being said, intimacy does not entail identity. For James, even in our moments of selfless involvement with the world, we do *simultaneously* remain ourselves. In Buber's words, we "set at a distance." James writes in *A Pluralistic Universe* that "'ever-not quite' has to be said of the best attempts anywhere in the universe at attaining all-inclusiveness. The pluralistic world is more like a federal republic than like an empire or kingdom. However much may be collected . . . something else remains self-governed and absent and unreduced to unity" (James 1977, 145).

Before we lament the fact that perfect and lasting identification with the world will not be achieved, before weeping that our ability to transcend our narrow self-definition will always be incomplete or partial, we may wonder if our consternation is warranted. Do we want to fully and permanently lose ourselves by entering an all-encompassing godhead? This is, after all, the price of admission in many forms of traditional metaphysics—we gain access to the Infinite at the expense of the individual. James's description of the mystical experience as being defined by the perception of "more" and "not quite" points to an alternative model of transcendence.

The mystic's immediate perception of nature is defined by the character of expansiveness, the character of being more, *much* "more." In precious moments of affective closeness—in social and natural settings—we too may experience an analogous sense of "more." In sympathetic interactions

with friends, we mirror and return their emotional states and interactively become more than we otherwise might be. We honestly state that we "feel for" them. We are willing, in James's words, to "close our mouths and be as nothing in the water spouts" of their affective lives. I suggest, however, that the difference between us is a necessary factor in personal transcendence. Buber and James seem to speak in one voice in suggesting that a type of distance must be maintained in order for a true relationship to arise *between* self and Other. If we truly became our friend or were dissolved in the consciousness of the world, this state would undoubtedly affect our sensation of "more" and our ability to participate in this feeling relationship.

And so we come to the "not-quite"—which, according to James, describes the incomplete character of our moments of mystical-biological transcendence, the moments in which we sense ourselves in harmony with the world. More optimistically and, I argue, more accurately, we might say that Jamesian transcendence remains provisional and open-ended. The unity that is achieved in a social or metaphysical transaction is realized not in static closure but in the creative openness of cooperation. It is the sense of the not-quite that keeps us coming back for "more."

James holds that the flourishing of religion—its doctrine, its institutional structure, its lasting meaning—must be rooted in the ground of religious experience. Religion springs from experience and must be judged on its ability to reinterpret and enrich our experiential lives. James sets the stage for John Dewey by suggesting that experience is genuinely religious when it reflects the ongoing cooperation of ourselves, our immediate situations, our broader environmental contexts, and, perhaps, still wider metaphysical spheres. Indeed, for James and Dewey, religious experience and mystical experience are separated by only a hair's breadth. This cooperative experience is both immanent and transcendent, both organic and emergent. To participate in this cooperation may be the only divine directive; for James, this "best and rightest response seems all that [God] wants from us" (1984, 562). To say that cooperation is all that God wants from us risks confusion. It is not the case that God commands or even enables us from on high. In *Pragmatism* James states that "some kind of an immanent or pantheistic deity working in things rather than above them" is the only version of theism that is congenial to our modern sensibilities or to his own empirical dispositions (1907, 39).

In 1907, James's intent was to mediate between two laundry lists of philosophical dispositions. On one side was the rationalistic, on the other the empiricist. This intent is embodied in his *Psychology* as James explores the middle ground between affective states and bodily effect, between psychological structuralism and behaviorism. His attempts at bridging this divide have occupied our attention in large swaths of this article. For James, however, this project was a mere warmup and preparatory move for a much more difficult undertaking. If we return to the rationalistic/empiricist lists

at the beginning of this article, it is apparent that James is seeking common territory between two opposing camps described as religious idealism and irreligious materialism. His comments on mystical transcendence and pantheism, which stem from his investigations of physiology and the empirical sciences, suggest that the conditions for the possibility of religious experience exist in the unique dynamics of our thoughtful natures. This a type of transcendence that never leaves the ground of human embodiment.

NOTE

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