Person Perceivers Meet Persons Perceived." *Journal of Personality and Social Psychology* 54:733–40.

Fiske, Susan T. and Steven L. Neuberg. 1990. "A Continuum of Impression Formation, from Category-Based to Individuating Processes: Influences of Information and Motivation on Attention and Interpretation." Pp. 1-74 in *Advances in Experimental Social Psychology*, edited by M. Zanna. New York: Academic Press.

Miller, Joan G. 1984. "Culture and the Development of Everyday Social Explanation." *Journal of Personality and Social Psychology* 46:961–78.

Morris, Michael W. and Kaiping Peng. 1994. "Culture and Cause: American and Chinese Attributions for Social and Physical Events." *Journal of Personality and Social Psychology* 67:949–71.

Smith, Eliot R. and Elizabeth C. Collins. 2009. "Contextualizing Person Perception: Distributed Social Cognition." *Psychological Review* 116:343–64.

The Social Psychologies of Emotion: A Bridge That Is Not Too Far

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Traditionally, emotion is a topic more central to psychology than to sociology. The *Annual Review of Psychology* has almost 400 articles that mention emotion since 1975, while the *Annual Review of Sociology* has roughly one-third as many in that period. Rather than bridging the two disciplinary canons, the early literature in sociology was focused on establishing that it had something distinctive to say about this apparently individual phenomenon (see early reviews by Gordon 1981 and Smith-Lovin 1995). During that time, the study of emotion in psychology, on the other hand, was focused on the relationship between emotion and cognition (Mandler 1975; Zajonc 2000), and the nature-nurture type of questions like physiological specificity of emotions and the universality of facial expression (Ekman 2003; Russel 1994). Most of the cross-citation was from classic sources like Schachter and Singer (1962) in psychology and Goffman (1959) in sociology. As the modern literature in both fields matures, we hope there may be more potential for mutual interest. Here, we briefly review some developments in both fields, and offer a research agenda that may be beneficial to both disciplines.

SOCIOLOGICAL SOCIAL PSYCHOLOGY: EMOTION AS CULTURE AND CUE

The sociology of emotion began in the mid-1970s with debates about how many basic emotions there were (Kemper 1987) and about the normative nature of emotional response (Hochschild 1983).[1] Sociologists of emotion emphasize the fact that the meanings of emotions—their antecedents, their prevalence, and their modes of expression—differ over historical time, institutional arrangements, and material resources. The macro-level work on the relationship between emotional norms (or feeling rules) and these material historical determinants is not really a social psychological enterprise at all. Rather, it is focused in the social constructionist tradition of the discipline, and is more closely akin to cultural sociology and the relationship between structure and culture that dominates

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Order of authorship is alphabetical; our contributions are equal.

[1] For reviews of this literature, see Smith-Lovin (1995), Stets and Turner (2006), Thoits (2004), and Turner and Stets (2006).

that subfield. An example of this macro-level approach to the sociology of emotions is Stearns and Stearns's (1986) argument that the Industrial Revolution and its changing arrangements of work and family life led to a view of the family as an emotional haven from an impersonal, brutal work environment. They suggest that this shift led middle-class Americans to view anger as a disruptive force that required control. Another macro-level example is Lofland's (1985) argument that grief is experienced more intensely and for longer durations in modern times, because of shifts in demography (smaller families, lower infant mortality) and living arrangements (more private space to withdraw from others).

The other major thread of sociological work on emotions explores how emotions arise from social interaction and motivate subsequent social action. This micro-level work is at the center of sociological social psychology. It offers more potential for bridging to psychological research on emotion. Most of this work falls into three themes. The biggest body of work looks at emotional socialization and regulation, especially among adults in occupational settings. This research builds on the concept of emotional labor introduced by Hochschild (1983). Many different occupational settings have been studied—flight attendants, supermarket clerks, fast food servers, bill collectors, sales workers, doctors, nurses, paralegals, attorneys, wedding consultants, among others (see Thoits 2004: 365–6 for a review). A smaller literature looks at emotion socialization among children and adolescents, mainly concentrating on how this socialization is accomplished and the emotion norms that are communicated (e.g., Simon, Eder, and Evans 1992). Finally, there is a substantial literature on techniques of emotion management that people use to conform to emotion norms (Thoits 2004).

The second major theme relates emotional experience to health outcomes. This work links social structural positions, the life course, and major life events to mental distress or happiness (e.g., Mirowsky and Ross 2003). More directly related to the sociological theme of emotion norms, Thoits (1985) discusses how emotional deviance can lead to labeling of self or others as mentally ill. Finally, there is a small but interesting literature on how emotional dynamics are used within clinical settings for therapeutic purposes (Francis 2006).

The third theme in the micro-level sociology of emotions focuses explicitly on social interaction, and how the form of that interaction can produce systematic emotional outputs. This work was labeled "positivist" in the early era of the sociology of emotion (e.g., Kemper 1977) because it assumes that emotions are produced spontaneously by certain social arrangements and that those emotional responses have been selected by evolutionary processes and have functional value. In work within the group processes tradition, microsociology has focused on how status-ordered interactions generate emotional responses which foster group cohesion or generate tensions that must be dealt with for task work to proceed (see review in Ridgeway 2006). Researchers have described the emotional responses that arise systematically from social exchange, and their implications for the development of relationship commitment and group identity (Lawler, Thye, and Yoon 2009). Emotional responses to injustice in exchange have also seen some work (e.g., Robinson, Clay-Warner, and Smith-Lovin 2010).

Closely related is research growing out of the symbolic interactionist tradition focusing on how identities (created by role occupancy, group membership, or salient differentiating personal characteristics) generate emotions. The fact that identity occupancy creates interactions that foster typical emotions (called "structural emotions" by Kemper [1977]) links this work to the survey research tradition on mental distress and happiness. Most research, however, has concentrated on situations where identities are not maintained. There is a lively debate (and somewhat mixed empirical literature) on how social interactions that disturb identity meanings influence emotional responses (Smith-Lovin and Robinson 2006).

Linkages to Psychology

Connections between the microsociology of emotion and psychological work on the topic are clearest in the third tradition of work on social interaction and emotion. The close link between sociological and psychological work on exchange processes is discussed elsewhere in this collection (Fiske and Molm this volume); psychological work on emotional responses to injustice is also foundational (see review in Robinson et al. 2010). Much of the research on identity and emotional response parallels closely several psychological theories of self-regulation and self-consistency (e.g., Higgins 1987; Swann 1987; Carver and Scheier 2001). One recent psychological framework that explicitly discusses the role of identity in elicitation and expression of emotion is the Intergroup Relation Theory (Smith and Mackie 2008).

Even in work on emotion norms, emotional socialization, and emotional deviance, it is implicit that there is some type of spontaneous emotional response that needs to be regulated. Occupational settings often give rise to emotional responses that would be problematic if expressed directly (for example, when medical work requires dealing with disgusting bodily functions or when service work requires attention to situations which are not inherently interesting). Emotional deviance, and the labeling that it creates, explicitly acknowledges the fact that emotional responses are not always well-regulated by normative structures (e.g., Gross 2008).

The research on how social structures influence emotional distress, loneliness, happiness, and health outcomes rests upon a psychological literature that links stress to its physiological effects on other health-related processes (Cacioppo, Fowler, Christakis 2009; Miller, Chen, and Cole 2009). Interdisciplinary work here is the norm rather than the exception.

PSYCHOLOGICAL SOCIAL PSYCHOLOGY: EMOTION AS EMBODIMENT

Psychological debates about the nature of emotion have in many ways paralleled sociological ones. Psychology, like sociology, has a long literature discussing the classification and number of basic emotions, vigorously debating the degree of universality in their expression, physiology, and their evolutionary history (Ekman 2003; Russel 1994). It also has a very active debate over the degree to which emotions are tied to rational cognition and are consciously processed (see discussion in Zajonc 2000). Recent work has focused on embodiment theories of emotion (for review, see Niedenthal et al. 2005). These theories developed in response to symbolic theories of information processing (Fodor 1975). According to those symbolic theories, in order to be "thought about" (processed by higher-level cognitive functions), all experiences (including social experiences, like emotional responses) have to be first transduced from their modality-based form (including perceptual, somatosensory and motor systems) into symbolic, language-like representations (propositions). Embodiment theories, on the other hand, assume that modalities are always involved in processing of the experience. That is, embodiment happens both in the original active interaction with a stimulus as well as in later thought about the now-absent stimulus (Niedenthal et al. 2005). Such embodiment often involves imitation, so that the processes by which we understand the experiences of others mimic the processes by which we experience emotions directly ourselves. For example, thinking about a partner's pain might generate some of the same physical reactions that a painful stimulus directly experienced would generate. Thinking about a past experience with a lying politician might regenerate some of the same responses that the initial encounter elicited (a roiling stomach) as well as new motor responses (a clenched fist). Even thinking about abstract emotion concepts (e.g., delighted, or irritable) generates mild but congruent facial expressions, which seem necessary for a fast and accurate identification of such concepts (Niedenthal et al. 2009).

The modality-based view of emotion processing is informed by fast-growing knowledge about the neuroscience of emotion. A

detailed review of those findings is outside the scope of this piece (see a summary in Heberlein and Atkinson 2009). A few general points about the neural basis of these phenomena are useful, however. First, the new embodiment theories assume that neither central nor peripheral systems have priority; they tend to run simultaneously during both initial processing and later (re)creation of emotional experience. A related point is that it does not make much sense to talk about "primitive" and "advanced" systems of the brain. The neural representations of emotion have not been static in evolutionary history, and have changed along with the addition of higher-order cognitive processing, such that the whole emotional brain works together to generate the appropriate emotional response (Damasio 1999).

Further, as mentioned, the essence of the embodiment approach is that perception, reaction, understanding, and action are intrinsically intertwined and support each other. Thus, the neural systems supporting these processes are simultaneously active. For example, processing of facial expressions will draw on "core" brain areas, which perform basic feature extraction and encode invariant (structural) and variant (person- and movement-related) features (e.g., fusiform gyrus, inferior occipital gyrus, the superior temporal sulcus). But, in addition to these core areas, recognizing facial expressions also recruits areas involved in (a) detecting emotional significance (amygdala), (b) sensing and moving the perceivers' own faces, such as the somatosensory and motor cortex, (c) interoception, such as the insula, and (d) linking bodily feedback to abstract cortical representation, such as the ventromedial prefrontal cortex (vmPFC). This multi-modality explains why people are slower to recognize changes in facial expressions if their facial muscles are constrained by holding a pen and cannot mimic those expressions spontaneously (Oberman, Winkielman, and Ramachandran 2007). Evidence that people with autism spectrum disorder (ASD) use only cold (rule-based) rather than hot (embodied) strategies for emotion recognition reinforces the sense that embodied modalities are essential for spontaneous, rapid, effective emotional responses of normal interaction (Winkielman, McIntosh, and Oberman 2009). Those diagnosed with ASD show less rapid mimicry (McIntosh et al. 2006), and appear to have less response in the so-called "mirror neuron areas" when processing emotional information (Dapretto et al. 2005).

Linkages to Sociology

On the face of it, psychology's movement from a symbolic representation of emotional processing to embodiment theories would seem to conflict with the central tenets of symbolic interactionism, which dominates sociological thought. However, the suggestion that other modalities interact with symbolic representations to create a "lived experience" of emotional life is consistent with this sociological framework. Attention to the new field of neurosociology (TenHouten 1997; Franks 2010) and an increasing interest in the evolutionary basis of emotion (Turner and Stets 2005) provides additional connections between work in the two fields. The work on embodiment within psychology can illuminate how emotion management techniques work in "deep acting" emotion management (Hochschild 1983), and how rituals evoke common emotional energy in their participants (Collins 2004). Finally, the fact that even abstract emotion concepts are embodied provides a mechanism through which social structure can literally get "under the skin" and convert a symbolic meaning to a physical experience (see also Lakoff and Johnson 1999).

CONCLUSIONS: TRENDS AND AGENDA SETTING

Attention to neuroscientific foundations is shaping both sociological and psychological understanding of emotion and its role in social interaction. One area where interdisciplinary development might benefit both fields is the closer linkage between this neurological work and theoretical models. For example, there has been a debate in sociology about the impact of identity verification on emotions. Identity theory (Burke and Stets 2009) implies that lack of verification always

results in negative emotion, while affect control theory (Heise 2007) implies that the character of emotion that results from identity disruption varies depending on the nature of the identity and the direction of its disruption (see a more complete discussion in Smith-Lovin and Robinson 2006). Data from fMRI studies might help to disambiguate the mixed findings in this domain, since the neural structures involved in evaluation, potency, and activation as well as those involved in the processing of uncertainty are fairly well understood.

Sociological work can enrich psychological findings by adding a framework to the systematic observations that are made in social interactions. Things that are regarded as "habit" by psychologists are structured by institutional surroundings (Wood and Neal 2007). There is little attention paid to the situational constraints within which behavior occurs.

Decision-making, the core concern of the new study of neuroeconomics, views choices as shaped by information and valuation. Sociological theories can show how information and its acquisition are structured, and how symbolic labeling then shapes reactions by shaping responses to new information. For example, a recent study shows that brain structures involved in responses to primary rewards (e.g., erotic pictures) overlap with those representing symbolic rewards (e.g., money); this phenomenon results in mutual influence, driving actual gambling choices (Knutson et al. 2008). However, a sociological perspective on money and sex would predict that neural and psychological representation of these "goods" can dissociate under different symbolic description, as their linkages are specific to a particular sociocultural settings. In short, integrating sociological, psychological, and neural levels of analysis can result not only in more comprehensive theories, but in specific novel empirical predictions.

REFERENCES

Burke, Peter J. and Jan E. Stets. 2009. *Identity Theory*. New York: Oxford University Press.

Cacioppo, John T, James H. Fowler, and Nicholas A. Christakis. 2009. "Alone in the Crowd: The Structure and Spread of Loneliness in a Large Social Network." *Journal of Personality and Social Psychology* 97:977–91.

Carver, Charles S. and Michael F. Scheier. 2001. *On the Self-regulation of Behavior*. Cambridge University Press.

Collins, Randall. 2004. *Interaction Ritual Chains*. Princeton, NJ: Princeton University Press.

Damasio, Antonio. R. 1999. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. New York: Harcourt Brace.

Dapretto, Mirella, Mari S. Davies, Jennifer H. Pfeifer, Ashley A. Scott, Marian Sigman, Susan Y. Bookheimer, and Marco Iacoboni. 2006. "Understanding Emotions in Others: Mirror Neuron Dysfunction in Children with Autism Spectrum Disorders." *Nature Neuroscience* 9:28–30.

Ekman, Paul. 2003. *Emotions Revealed*. New York: Times Books.

Fodor, Jerry A. 1975. *The Language of Thought*. New York: Crowell.

Francis, Linda E. 2006. "Health and Emotion." Pp 591–610 in *the Handbook of the Sociology of Emotions*, edited by Jan Stets and John Turner. New York: Springer.

Franks, David D. 2010. *Neurosociology*. New York: Springer.

Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. Garden City, NJ: Doubleday.

Gordon, Steven L. 1981. "The Sociology of Sentiments and Emotion." Pp. 562–92 in *Social Psychology: Sociological Perspectives*, edited by Morris Rosenberg and Ralph H. Turner. New York: Basic Books.

Gross, James J. 2008. "Emotion Regulation." Pp. 497–512 in *Handbook of Emotions*, edited by J. Michael Lewis and Lisa F. Barrett New York, NY: Guilford Press.

Heise, David. 2007. *Expressive Order: Confirming Sentiments in Social Actions*. New York: Springer.

Heberlein, Andrea S. and Anthony P. Atkinson. 2009. "Neuroscientific Evidence for Simulation and Shared Substrates in Emotion Recognition: Beyond Faces." *Emotion Review* 1:162–77.

Hochschild, Arlie. 1983. *The Managed Heart: Commercialization of Human Feeling*. Berkeley, CA: University of California Press.

Higgins, E. Tory. 1987. "Self-discrepancy: A Theory Relating Self and Affect." *Psychological Review* 94:319–40.

Kemper, Theodore David. 1987. "How Many Emotions Are There? Wedding the Social and the Autonomic Components." *American Journal of Sociology* 93:263–89.

Knutson, Brian, G. Elliott Wimmer, Camelia M. Kuhnen, and Piotr Winkielman. 2008. "Nucleus Accumbens Activation Mediates the Influence of

Reward Cues on Financial Risk Taking." *Neurore-port* 19:509–13.

Lakoff, George and Mark Johnson. 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*: New York: Basic Books.

Lawler, Edward J., Shane R. Thye, and Jeongkoo Yoon. 2009. *Social Commitments in a Depersonalized World*. New York: The Russell Sage Foundation.

Lofland, Lyn H. 1985. "The Social Shaping of Emotion: The Case of Grief." *Symbolic Interaction* 8:171–90.

Mandler, George. 1975. *Mind and Emotion*. New York: Wiley.

McIntosh, Daniel N., Aimee Reichmann-Decker, Piotr Winkielman, and Julia L. Wilbarger. 2006. "When the Social Mirror Breaks: Deficits in Automatic, but not Voluntary, Mimicry of Emotional Facial Expressions in Autism." *Developmental Science* 9:295–302.

Miller, Gregory E., Edith Chen, and Steve Cole. 2009. "Health Psychology: Developing Biologically Plausible Models Linking the Social World and Physical Health." *Annual Review of Psychology* 60:501–24.

Mirowsky, John, and Catherine E. Ross. 2003. *Education, Social Status, and Health*. New Brunswick, NJ: Aldine Transaction.

Niedenthal, Paula M., Lawrence W. Barsalou, Piotr Winkielman, Silvia Krauth-Gruber, and François Ric. 2005. "Embodiment in Attitudes, Social Perception, and Emotion." *Personality and Social Psychology Review*: 9:184–211.

Niedenthal, Paula M., Piotr Winkielman, Laurie Mondillon, and Nicolas Vermeulen. 2009. "Embodiment of Emotion Concepts." *Journal of Personality and Social Psychology* 96:1120–36.

Oberman, Lindsay M., Piotr Winkielman, and Vilayanur S. Ramachandran. 2007. "Face to Face: Blocking Facial Mimicry Can Selectively Impair Recognition of Emotional Expressions." *Social Neuroscience* 2:167–78.

Ridgeway, Cecilia. 2006 "Expectation States Theory and Emotion" Pp. 347-367 in *Handbook of Sociology of Emotions*, edited by J. E. Stets and J. H. Turner. New York: Springer Press.

Robinson, Dawn T., Jody Clay-Warner, and Lynn Smith-Lovin. 2010. "Emotional Consequences of Being Treated Better Than You Deserve: New Tests of Competing Predictions from Identity Control Theory and Affect Control Theory." Paper presented at Southern Sociological Society meetings, Atlanta, GA, April 21-24, 2010.

Russell, James A. 1994. "Is There Universal Recognition of Emotion from Facial Expression? A Review of the Cross-cultural Studies." *Psychological Bulletin* 115:102–41.

Schachter, Stanley and Jerome Singer. 1962. "Cognitive, Social, and Physiological Determinants of Emotional State." *Psychological Review* 69:379–99.

Simon, Robin W., Donna Eder, and Cathy Evans. 1992. "The Development of Feeling Norms Underlying Romantic Love among Adolescent Females." *Social Psychological Quarterly* 55:29–46.

Smith, Eliot R. and Diane M. Mackie. 2008. "Intergroup Emotions." Pp. 428–39 in *Handbook of Emotions*, edited by Michael Lewis, Jannette Haviland-Jones, & Lisa Feldman Barrett. New York: Guilford Press.

Smith-Lovin, Lynn. 1995. "The Sociology of Affect and Emotion." Pp. 118–48 in *Sociological Perspectives on Social Psychology*, edited by Karen S. Cook, Gary Alan Fine, and James S. House. Boston, MA: Allyn and Bacon.

Smith-Lovin, Lynn and Dawn T. Robinson. 2006. "Control Theories of Identity, Action, and Emotion: In Search of Testable Differences between Affect Control Theory and Identity Control Theory." Pp. 163–88 in *Purpose, Meaning and Action: Control Systems Theories in Sociology*, edited by Kent McClelland and Thomas Fararo. New York: MacMillan.

Stearns, Carol Z. and Peter N. Stearns. 1986. *Anger: The Struggle for Emotional Control in America's History*. Chicago, IL: University of Chicago Press.

Stets, Jan E. and Jonathan H. Turner (eds.). 2006. *Handbook of the Sociology of Emotions*. New York: Springer.

Swann, William B., Jr. 1987. "Identity Negotiation: Where Two Roads Meet." *Journal of Personality and Social Psychology* 53:1038–51.

TenHouten, Warren. 1997. "Neurosociology." *Journal of Social and Evolutionary Systems* 20:7–37.

Thoits, Peggy A. 1985. "Self-labeling Processes in Mental Illness: The Role of Emotional Deviance." *American Journal of Sociology* 92:221-49.

———. 1989. "The Sociology of Emotions." *Annual Review of Sociology* 15:317–42.

———. 2004. "Emotion Norms, Emotion Work, and Social Order." Pp. 359–77 in *Feelings and Emotions: The Amsterdam Symposium*, edited by Antony S. Manstead, Nico Frijda, and Agenta Fischer. New York: Cambridge University Press.

Turner, Jonathan H. and Jan E. Stets. 2006. *The Sociology of Emotions*. New York: Cambridge University Press.

Winkielman, Piotr, Daniel N. McIntosh, and Lindsay Oberman. 2009. "Embodied and Disembodied Emotion Processing: Learning From and About Typical and Autistic Individuals." *Emotion Review* 1:178–90.

Wood, Wendy and David T. Neal. 2007. "A New Look at Habits and the Habit-goal Interface." *Psychological Review* 114:843–63.

Zajonc, Robert B. 2000. "Feeling and Thinking: Closing the Debate over the Independence of Affect." Pp 35–58 in *Feeling and Thinking: The Role of Affect in Social Cognition*, edited by Joseph P. Forgas. New York: Cambridge University Press.