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Revisiting Swidler, Again: Brain, Self, and Culture in Action

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Revisiting Swidler, Again: Brain, Self, and Culture in Action

Abstract

Sociological understandings of culture in action have benefited greatly from Ann Swidler's (1986, 2001) contributions. In this paper, I argue that these contributions can be enriched by integrating an explicit model of culture in the mind that interacts with culture in the world to shape action. Like previous work by Vaisey (2008; 2009) and Lizardo and Strand (2010), this paper draws on insights from contemporary cognitive science and neuroscience. The paper extends these prior analyses, but argues that they have understated the consistency of Swidler's implicit cognitive models with established science about the brain and mental functions. I also draw on scientific understandings of brain function to expand on Swidler's own characterization of her work as "an identity model of culture in action". I consider the value of having a model of mental function that includes self processes for adjudicating apparent contradictions in and adding clarity to Swidler's account. I conclude by considering the value of a model of mind for strengthening a sociological understanding of culture in action.

Revisiting Swidler, Again: Brain, Self, and Culture in Action

Ann Swidler's account of culture in action has profoundly influenced cultural sociology. Her pivotal article (1986), "Culture in Action: Symbols and Strategies" has been cited nearly 4000 times; her later book elaborating the themes of the article (2001), *Talk of Love*, over 650 times¹. The "tool kit" approach to understanding culture, although proposed by Hannerz 1969, has gained enormous traction through Swidler's work. Swidler has taken on questions centrally relevant to the linkage between culture and mind – how individuals hold and use culture and how culture affects individual action. At the same time, she has explicitly denied an interest in mental functioning. Her main investment is in understanding "the structures that determine how cultural meanings will be organized, and when and where particular sets of meanings will be brought to bear on experience." In fact, she argues that "the question of how culture shapes action can't be answered by figuring out better models of how it operates in the heads of individuals..." (2008: 617).

Despite these protestations, her work has provided fertile ground for cognitive sociologists. Vaisey (2008, 2009) and Lizardo and Strand (2010) have mined her account of culture in action for implicit assumptions about cognitive function. While not endorsed by Swidler, these efforts are in line with the work of many sociologists who view mental function as a crucial piece of the puzzle in the relation between culture and action (Cerulo 2002, Martin 2010, Shepherd 2011). DiMaggio (1997:282) argues that

“...any explanation of culture’s impact on practice rests on assumptions about the role of culture in cognition” and that understanding the validity of these assumptions is highly relevant for cultural sociology (see also Ignatow 2007, Lizardo and Strand 2010, and, for a similar argument from cultural anthropology, Quinn and Strauss 2006). As Vaisey (2009) points out, Swidler comes closer than many other cultural sociologists in making her assumptions about human cognition evident. I agree, and argue that despite the rich and insightful portrait of how people hold and use culture that Swidler provides, her reluctance to adopt an explicit model of cognitive processes limits her ability to provide a clear, parsimonious, and fully satisfying theory of culture in action.

This paper extends prior analyses of Swidler’s implicit cognitive models, drawing as previous analyses have done from research in cognitive science and neuroscience. This is intended not as a critique of Swidler’s massive accomplishment but as an exploration and elaboration of mechanisms. I argue that previous analyses have understated the consistency of Swidler’s account with established science about the brain and mental functions². I also draw on scientific understandings of brain function to expand on Swidler’s own characterization of her work as “an identity model of culture in action”. I consider the value of having a model of mental function that includes self processes for adjudicating apparent contradictions in and adding clarity to Swidler’s account.

The central point of this exercise is to demonstrate the value of attending to mental processes for strengthening a sociological understanding of culture in action.

Because it is analytically tractable, sociologists often conceptualize culture as a more or less coherent and organized collection of symbols in the world. But this conceptualization, by itself, affords little purchase for understanding culture in action and cultural change. For this, we need to take account of the larger system that encompasses both culture in the world and culture in mind. The *process* of culture depends fundamentally on how human brains learn, interpret and use culture in the world and its link to human action emerges out of the deep interdependencies among culture in the world, culture in mind, and the transformation of culture through human agency.

Swidler's Model of Culture in Action

In *Talk of Love* as in “Culture in Action,” Swidler (1986; 2001) sets out to develop an understanding of how people hold and use culture. Her goal is to move beyond the view, tracing back to Weber and Parsons, that culture motivates action through the internalization of values that specify desired ends. Instead of relying on coherent cultural values imposed through socialization, Swidler (2001:25) proposes that individuals use culture selectively, drawing on a repertoire or “tool kit” of ideas, scripts, moods and motivations that culture “cultivates” in them. Individuals can pick up and put aside elements of this repertoire, selecting and using them according to whether they “make sense” within the context of a particular situation or problem.

An individual's repertoire consists of cultured capacities – organized sets of knowledge, skills, styles, and habits that allow people to operate in particular social contexts. These include a broad range of psychological phenomena: a sense of self,

ways of feeling and judging experience; styles, skills, and habits of action, and views of the nature of the world. Specific examples include reading loyalty on the face of a friend, knowing how to dress in a suit, and, more generally, values. Out of these cultured capacities, individuals construct strategies of action which frame decisions about action in particular circumstances. Examples of strategies of action include relying on oneself to solve problems, joining a gang, or developing a network rich in social capital.

The self plays a pivotal role in Swidler's model of culture in action, taking an especially predominant role throughout *Talk of Love*.³ Here, she observes that "a good deal of culture operates by attaching meanings to the self," and that individuals' lines of action are shaped by the cultured capacities they have developed (Swidler, 2001:87; see also Swidler, 2008). Among the cultured capacities that provide the link between culture and action, the first she discusses is "the capacity to be a certain kind of self... to be guilt-ridden about wrongdoing, passive before authority, or infuriated by insubordination may be crucial parts of a self that can carry out particular lines of action..." Swidler (2001:24) suggests that, as with other cultured capacities, individuals can "pick up or put down... the kind of self they inhabit." On the other hand, the self is highly consequential: "...these urgent questions about what kind of self one has, and how to interpret other selves, are highly charged for us because so much rests on them" (Swidler 2001:73).

Finally, Swidler proposes that culture affects action differently in settled as compared to unsettled lives. In settled lives, people "live with a loose fit between culture and experience". This is because "culture is diversified, by being adapted to varied life circumstances, and has gone 'underground'" (Swidler 2001:89,104). Culture affects

action because it supports certain strategies of action and constrains the ability to adopt others. In contrast, in unsettled lives – times of change in the life course or times in the society at large when social structure and (at least some elements of) culture are in flux– “Culture has independent causal influence ... because it makes possible new strategies of action” (Swidler 1986: 279). Culture becomes more visible, explicit, and coherent; “there appears to be “more” culture – because people actively use culture to learn new ways of being” (Swidler 2001:89).

This account of Swidler’s model leaves out a very important element: the larger social structures, including contexts, codes, and institutions, which organize and frame cultural logics. Swidler (2008: 617) argues that “cultural meanings are organized and brought to bear at the collective and social, not the individual, level.” She adds that is at this level that sociologists can advance an understanding of culture: focusing on psychological processes won’t help. Swidler’s treatment of these macro-level shapers of culture is masterful, and I do not focus on them directly in this paper. I do, however, argue that we cannot isolate these environmental factors from the action of the human mind if we want to understand how culture affects action.

The Costs of Bracketing the Mind

Swidler’s account teeters tantalizingly on the edge of delving into the cognitive mechanisms through which people engage and use culture. However, like many sociologists she “brackets” psychology and cognitive science. Terms like “self” and “capacities” pervade *Talk of Love*, but their meanings are kept general: they serve as

markers for psychological processes and attributes that are part of the larger story, but not elaborated because interest is focused at a higher level. This type of strategy is often necessary and fruitful in science, but like all strategies, it comes with tradeoffs. The tradeoff here is the lost opportunity to develop a fuller understanding of how culture works. How can people both use and be used by culture? How can culture instill itself in human beings and what role does human volition play in this? How is it possible for culture to be both “shallowly held” and “ingrained” in human minds? And how does culture motivate action (Vaisey 2009)? Without this other part of the story, the individuals in Swidler’s account become interesting case studies, but provide an incomplete understanding of why they might use culture as they do. Perhaps even more importantly, the account provides few clues as to how culture can be transformed in the process of becoming enmeshed in individual brains and influencing action. Finally, the bracketing of cognition leads to the dubious conclusion that culture affects action differently in unsettled and settled lives. There is a story here, but we can clarify and enrich it with a cognitive model.

Although Swidler does not explicitly address cognition, her descriptions of culture as tool kit and her discussions of cultured capacities and strategies of action imply a rich set of assumptions about how culture is learned, held, and used by individuals. In this section I explore these assumptions and the questions they raise about Swidler’s account.

While Swidler explicitly rejects the idea that culture affects action through “enduring psychological proclivities implanted in individuals by their socialization” (1986: 283), she provides a limited account of how people do learn cultural knowledge. Her one clear statement on the subject is that cultured capacities are developed through experience with symbols (2001:71). But how does this happen? In some instances, Swidler depicts people deliberately choosing to learn new cultural capacities: examples include people attending Marriage Encounter or seeking out religious experiences. People are often portrayed as choosing, constructing, and modifying their cultured capacities in a conscious, intentional manner. In other instances, she implies a less conscious, agentic process of learning. She uses terms that suggest that cultured capacities develop naturally as the product of experience. She uses examples of cultured capacities – images of the world, ways of feeling and judging experience – that individuals native to a culture do not develop planfully.

How is culture “held” in the mind? Can it be both shallowly held and ingrained? This question matters. If the brain does not possess the capacity to represent cultural knowledge in some enduring way, then individuals are limited to behaving in response to transient environmental cues without intermediary interpretation through cultural frames. If it does produce internal representations of culture, it matters how this occurs: different models of knowledge representation have different implications for the ability of the human mind both to learn the vast repertoire of cultural knowledge that exists and to flexibly and creatively apply bits of culture in situated action (Smith, 1996; Strauss and Quinn 1997). Following the lead of Geertz (1973) and others who believed that culture

should be studied as a phenomenon independent of individual cognition, Swidler (2001: 12) defines culture as sets of symbols that exist in the world. Although she eventually acknowledges that “culture is, of course, inside people’s heads” (Swidler 2001:161), her view of *how* culture is held in people’s heads is ambiguous.

Vaisey (2008, 2009) and Lizardo and Strand (2010) have characterized it as assuming that culture is “lightly held” in the mind. Lizardo and Strand interpret Swidler’s tool kit theory as assuming that actors do *not* create internal representations of cultural phenomena, but rather possess a set of “shallow” cognitive habits and heuristics and rely on the cultural, social, and physical environment to prompt specific lines of action. This conclusion accords with much of Swidler’s early discussion in *Talk of Love* that asserts that people can pick up and put aside cultural themes, call on contradictory themes to support the same argument, and remain distant from and skeptical of much culture they “know”. And yet, Swidler’s account of cultured capacities does not consistently suggest shallowly and consciously held habits or heuristics. She often uses language that suggests these are deeply held inside people: they “go underground,” they are “unconscious and ingrained”, “difficult to learn and unlearn” (2001: 104,210). Similarly, often she portrays strategies of action as consciously “constructed” by individuals, but also held by them in ways that are unconscious and ingrained. Once integrated in behavior, they too seem to go “underground:” they become ways of orienting oneself to or evaluating situations”(2001:86). In settled times, people “naturally ‘know’ how to act” because “their cultured capacities have come to seem ‘natural’” (2001:104).

Early in *Talk of Love* (2001: 24), Swidler notes that people both use and are used by culture. For the most part, her account of culture in action places the individual in a highly agentic role, deciding what bits of culture to use in particular situations. However, she suggests this way of using culture does not have an important independent impact on action: for the most part people use it “to tinker at the edges or to defend their existing patterns of life” (2001: 30). And yet, those existing patterns of life clearly owe something to the cultured capacities and strategies of action people have “constructed” and which Swidler sees as constraining the potential actions people can take. Thus, despite the highly agentic tone set by her work, she ultimately implies that people are more a product of culture than effectively engaged in its use.

Vaisey (2009:1678) criticizes Swidler’s account for “leav[ing] meaning and motivation decoupled.” I agree that Swidler provides a vague account of human motivation: action is constrained by cultural capacities and moved by what makes sense in a given situation. And yet, other aspects of her work convey something more. Cultured capacities themselves comprise not only skills and habits but “ways of feeling” and values. Thus, Swidler opens the door to an account of motivation that relies on “moral intuitions – the unreflective attractions and repulsions of practical consciousness” (Vaisey 2009:1684), but it is an undeveloped account, one about which she herself acknowledges many questions (Swidler 2008).

Swidler comes closest to addressing motivation in her discussion of self and identity: “...people develop lines of action based on who they already think they are” (2001: 87). However, the discussion of self contains ambiguities that parallel those

discussed above. Often, in her language and examples, she suggests that people consciously construct themselves: people use cultural materials to construct a self, "...to learn how to be, or become, particular kinds of persons" (2001:71). Her characters purposefully draw on psychotherapeutic ideologies, religion, and popular music to become new kinds of selves. However, her broader discussion of cultured capacities implies a less conscious process of self-construction: "Through experience with symbols, people learn desires, moods, habits of thought and feeling that no one person could invent on her own" (2001:71). Environments shape the self: "The 'self' and its cultural resources or capacities are constructed very differently in one historical period or social situation versus another ...The acting, experiencing person will be engaged by matters that affect the group with which she or he is identified" (2001: 74).

Thus, while Swidler implies a great deal about the mental processes that link culture to action, she leaves much that is unclear and unanswered. She emphasizes, on the one hand, an account of culture in action that relies on conscious deliberation but, on the other, also implies a different model that suggests that cultured capacities and selfhood may be deeply ingrained in actors and unconsciously learned. The presence of these dual models, however, creates ambiguities. Is learning a conscious process, deliberately undertaken, or do people learn in other ways also? How is cultural knowledge carried in the brain and what control do people have over the knowledge they carry and its impact on their actions? Are actions the result of deliberative planning or cultural conditioning or both? And in all of these cases, what determines whether the effect of culture on action is a function of individuals consciously using culture to learn,

store, and leverage cultural knowledge as opposed to people being passively “used by their culture”, as Swidler (2001:24) suggests sometimes happens. Swidler seems to be addressing this issue in her discussion of settled vs. unsettled lives, but, as I will argue, the observations she advances in this context can be better and more parsimoniously explained with a model that incorporates cognitive science and psychology.

Cognitive Science: A dual-process, embodied view of mental function

Can cognitive science help to clarify and elaborate the assumptions about how individuals learn, hold, and use culture in Swidler’s analyses? In this section, I provide a basic model of mental function that envisions an embodied, dual-process brain, one that relies not only on conscious or deliberative processes but also automatic processing of meanings and feelings. This model is drawn from psychology and neuroscience and also the work of cognitive sociologists (e.g., Lizardo 2004, 2007, 2011; DiMaggio 1997; Ignatow 2007) and psychological anthropologists (Strauss and Quinn 1997; D’Andrade 1995) who have imported cognitive science into cultural theory. In the following section, I develop a cognitively-informed model of self and examine its compatibility with theories of self and identity in symbolic interactionism. Finally, I explore the implications of these models for how the brain learns, holds, and uses culture in action, and how these implications comport with Swidler’s implicit assumptions and other sociological theory.

Although most brain scientists embrace the concept of dual systems (Chaiken & Trope, 1999; Lieberman, 2007), we do not yet know exactly how it maps onto the brain

(Evans 2008). We do know that the brain functions through the parallel operation of a massive number of distributed processes, all specialized to perform specific functions (Gazzaniga 2011). Some of these processes occur automatically and outside of consciousness, and others, to varying extents, help to create deliberative, conscious functionality.

Automatic and Embodied Processes. In some authors' views, automatic processes are capable of performing virtually all of the functions our brains perform: sensing incoming stimuli, directing attention to what is important, interpreting environmental cues, learning new information and storing it in memory, retrieving information, producing appropriate action, and even pursuing goals (Gazzaniga 2011; Bargh and Morsella 2008). This is clearly the case with some brain functions – many of the body's basic processes cannot be intentionally manipulated and many of those that can (e.g., respiration) generally carry on without conscious intervention. Even complex culturally derived actions, like driving a car, can be largely consigned to automatic processes once they are learned (Donald 2001).

Automatic, unconscious processes are particularly important to learning, memory, and retrieval. One of the basic tasks that brains perform is to automatically create and continuously update representations of our internal body systems and the environments we navigate (Damasio 2010; LeDoux 2002). DiMaggio (1997) differentiates two aspects of this process. On the one hand, some automatic processes in the brain sense bits of information and store them as memory traces in a relatively indiscriminate fashion.

Other automatic processes detect patterns in this flood of information and create schemas that give the patterns meaning.

This pattern-detection process is central to the learning of culture. Because humans' shared social environments are structured by cultural meanings and practices as well as contexts, institutions, and codes (Swidler 2001), an individual's sensory experience of the world is also patterned in ways that reflect these structures. As these patterns are experienced over time, neural networks in the brain develop habits of connectivity⁴ that link together co-occurring elements. The resulting *schemas* reflect the patterning or structure we see in the environment (DiMaggio 1997; McClelland, McNaughton & O'Reilly, 1995; Strauss and Quinn, 1997).

Schemas are relatively durable, abstract and typically partial representations of concepts, objects, or actions (Mandler, 1984). They provide the brain with a means of translating episodic knowledge, for example, the memory of a trip to the grocery store, into re-usable semantic knowledge – the knowledge that bananas are in the produce aisle and that one “checks out” before leaving the store. The same habits of connectivity that provide the basis for schemas also help to map schemas in neural networks in ways that reflect their associations with other schemas, the context in which the object or action tends to occur, and words or language (Damasio 1994, 2010; Strauss and Quinn 1997).

Many cognitive scientists have come to the conclusion that brains store, not representations of schemas, but the memory of how to recreate relevant representations upon demand (Clark 1997; Damasio 2010; Rumelhart and McClelland 1986). In the context of any new situation, sensory information triggers the reconstruction of

representations by neural networks trained through past experience to decipher meanings appropriate to the object of attention and its context. The brain retains, then, *habits of connectivity* – the learned dispositions of neurons to activate together in response to particular stimuli. What makes this mechanism so powerful is that it depends only on the interaction of environmental cues and basic biological processes built into the ways that neurons communicate; it does not require the development of new symbolic knowledge in the brain.⁵ It is also a far more efficient process, because it enables single neurons to cooperate in creating an unlimited number of representations at different points in time rather than being tied to any one representation.⁶

While this model of cultural learning accounts well for the ability of the brain to learn cultural skills and knowledge, it is an unfeeling account of the brain's process, as easily carried out in a computer as inside a human's head. But cognitive scientists who study “embodied cognition” have demonstrated that when real people conjure up a mental image, the image is grounded in, and integrates, bodily feelings connected to sensation and emotion (Damasio 2010, Gallese and Lakoff 2005, Garbarini and Adenzato 2004; Ignatow 2007). For example, the schema “baby” draws on the brain's representations of sensory experience – the feel of a baby's skin, the sound of its cry, the image of a round face, and a sweet smell. When “baby” comes to mind, the systems originally responsible for sensing and recording these features activate to reproduce them as part of our schema.

The schema will also carry patterns of sensation caused by our emotional reactions to babies. One of the evolutionarily oldest parts of the brain, the brain stem,

continuously engages and processes signals from the body's viscera and internal milieu and, in the process, generates what Damasio (2010) terms "primordial feelings", sensations that convey various degrees of well-being or distress. These feelings form the basis of the brain's evaluation of objects and events: if our experience with a baby consistently generates positive feelings, our schema of baby will carry a positive valence. If we consistently fear dropping her, our schema will be tinged with fear. The images mapped by the brain thus become valued with respect to both their salience and positive or negative valence for the organism (Damasio 2010; LeDoux 2002). When the brain recreates a schema or image, it regenerates the patterns of connectivity that gave rise to it, engaging with sensory systems and feelings. As Damasio (2010:254) puts it, "all conscious images are accompanied by a choir of emotions and consequent feelings".

Deliberative Processes. The idea that automatic, unconscious processes dominate mental activity is now well accepted, but the idea that they have the upper hand in controlling mental activity is not (e.g., Donald 2001, Gazzaniga 2011). Humans have developed exceptional powers of mental control and problem solving. We can, to some extent, choose to attend to certain stimuli and ignore others. We can direct our thoughts, bringing memories to mind. We can simulate potential courses of future action and evaluate their risks and benefits before deciding how to act. We can act on the basis of intentions formed months or years earlier. Theories of a homunculus sitting inside the brain and accomplishing all these feats are now discredited: current research suggests that many systems of the brain cooperate together to create at least the illusion, and

almost certainly, some degree of reality, that we are directing our thoughts and actions (Damasio 2010, Donald 2001).

Consciousness provides an important foundation for deliberative processes. One basic aspect of consciousness is the translation of information mapped in neural networks into images of which we are aware. This is the domain of working memory, a system which allows us to hold a limited amount of information (roughly 5 to 7 units) in consciousness for a limited amount of time (about 15 seconds; Evans 2008; LeDoux 2002). Working memory does not, itself, deliberate or control the brain's activity (Donald 2001). For the most part, the flow of images through working memory occurs automatically, through a selection process that draws on the brain's mapping of what is of value to us in managing and maintaining our lives (Damasio 2011). But human brains also have the capacity to manipulate symbols with precisely defined meanings, reason with them, and anticipate and simulate possible futures (Damasio 2011, Clark 1997, Gazzaniga 2011). Other self-reflective processes oversee the stream of conscious experience for extended periods of time, that is, over the time scale at which humans adjust themselves and their actions to the world. Through these processes, we can direct our attention to things that matter, exert autonomous control over our thought processes, keep narratives and social interactions going, and plan our lives (Donald, 2001). Scientists have identified some of the brain modules that cooperate to produce these capacities (see Damasio 2010, Gazzaniga 2011, LeDoux 2002) but the full elaboration of the processes involved is a work in progress.

Interdependencies. We may perceive deliberative capacities as fully controlled, but as Damasio (2010:275) suggests “...it is the felicitous synergy of the covert and overt levels that carries the day.” This synergy goes deeper than the alternation of habitual and creative thought suggested by pragmatist theory (Gross 2009). Conscious deliberation and automatic processes are instead deeply interdependent. When the brain’s deliberative systems reason or manipulate information, the information they work with is provided by established neural networks that have largely taken shape through automatic processes, representing images of the self, the environment, and the emotional freight associated with each image. The setting of goals draws not only on the manipulation of information in working memory but also on the evaluative content of the schemas these manipulations evoke in the mind (Bargh and Morsella 2008). Automatic processes also are continuously shaped by deliberative processes: the products of reasoning, future-simulating, and goal-setting feed back to shape or constrain (Gazzaniga 2011) automatic neural processes. Thus we can carry out a plan we made yesterday, and over time, with cooperation between deliberative and automatic, embodied systems, we can establish new habits and modify schemas.

Self and Identity

At one point in *Talk of Love*, Swidler characterizes her model of culture in action as an “identity” model. Like Swidler, I believe that something like identity or self is a key link between culture and action. The accounts of dual process and embodied brains explored above do a good job of explaining the mechanics of how cultural knowledge is learned, held, and used, but they fall short in the crucial question of motivation. Even if

we consider that the feelings attached to particular schemas may be strong, there is something missing – an element that captures why a particular script or schema matters for *me and what I do* in particular circumstances. Swidler’s portrayal of the self as emotionally charged and motivating, as a crucial foundation for action in the world, and as shaped out of cultural materials, provides an excellent starting point.

However, her account is partial (as she acknowledges) and flawed in two important ways from the perspective of what we know about cognitive function. First, she provides an overly deliberative account of how the self is constructed. As discussed before, she mainly uses language that attributes this shaping to agentic, purposeful action on the part of the actor, although at times she also implicitly allows for automatic learning. Second, Swidler (2001:24, 87) seems to reject the idea of any abiding internal structure representing the self. She makes the claim that “one of the cultural tools [individuals] ... may pick up or put down is precisely the kind of self they inhabit.” She views identity as the “social codes and practices that define us to ourselves and others” rather than internal representations that are “inherent in individual personhood.”

Building on the previous description of dual-process, embodied models of cognition, is it possible to develop a model of self that is useful in filling out Swidler’s theory of culture in action? And, can this model address Vaisey’s (2008) call for a “dual-dual” process that integrates a dual-process theory of mind with the improved theorizing about the relation between person and environment? Insights drawn from neuroscience suggest a model – indeed, one that converges in many respects with concepts of self in symbolic interactionist theory.

Definitions are crucial, and one small step in building on Swidler's insights is to make a clear distinction between self and identity. I want to make this distinction in the context of what it is that a "self" enables a person to do and the role that culture plays in this. Recent authors (e.g., Quinn 2006) have embraced a definition of self as "the totality of what an organism is physically, biologically, psychologically, socially, culturally" (LeDoux 2002:31), a definition that has its roots in James's (1890) definition of self as "the sum total of everything we can call ours." However, in a move that makes the self the crux for theorizing person-environment relations, Damasio (2010) makes the argument that a self is not a thing, but a process – a process that enables organisms to recognize, anticipate, and respond to environmental threats and opportunities. He points to the origins of this process in single-celled organisms that can sense and respond to threats automatically.

In humans, of course, the process is much more complex. As social animals with large adaptable brains, humans have the need and the opportunity to respond to a larger and more variable set of environmental conditions, including the need to cooperate and coordinate with other members of our group (Donald 2001; Gazzaniga 2011). Evolution has provided us with bonding systems that make relationships to others not only possible but generally rewarding (Miller and Rodgers 2001). It has also provided us with the means of learning and using culture, which has allowed humans to so extravagantly reshape their environment through collaborative activity. The *value* of a self is no different in humans than in single-celled organisms – it allows the organism to maintain itself and thrive in the context of an environment (Damasio 2010). But the human self

relates not only to physical threats and opportunities but to social ones, and in this culture has a large role.

As Swidler (2008) laments, the term “identity” comes weighted with a great many meanings. Common usage of self and identity in the psychological and sociological literature reveals a great deal of overlap between the concepts. Identity/ies is often used to represent both culturally shared meanings and internal representations of those meanings as a part of the self (Burke 2004, Hitlin 2003, Stryker 1980) and, also, in psychology, self-feelings of sameness and continuity that bear little relation to any social or cultural meaning at all (Erikson 1959, Hewitt 1989).⁷ Because the task here is to understand how cultural meanings are deployed in individual action, I take the liberty of using “identities” to refer to self-representations in the mind that are grounded in culturally shared meanings. I will use terms such as “cultural identities” or “the attributions of others” when referring to meanings that exist outside the individual. This is intended as an analytic device to permit discussion of deeply interdependent phenomena.

Identities are a part of the self and are deeply dependent on not only culture in the world but also self-processes in the mind. They are potentially accessible to consciousness, but not necessarily conscious at any given point in time. Identities are grounded in Swidler’s cultured capacities, but cultured capacities do not necessarily become part of identity and identity implies a commitment that cultured capacities often lack when part of a large “tool kit” of skills and knowledge.⁸ Swidler’s pre-eminent

cultured capacity, “the capacity to be a certain kind of self” (2001:73) may refer to identities, but does so obliquely.

How is the self formed?

An account of the role of the self in culture’s effects on action requires that two interrelated questions be answered: (1) How does the self develop, giving rise to (virtual) mental structures that represent identities and (2) how do these structures come to have motivational force? In recent work, Damasio (2010) has proposed that the self is generated through automatic processes that create representations of the body and the body’s interactions with its physical and social environment on a continuous basis. The flow of representations monitoring the body’s internal systems (which tend to operate within narrow homeostatic ranges) creates a sense of sameness and continuity. This is accessible to consciousness as a sense, but often exists in the background; it is a highly embodied representation that provides a foundation for other self-representations. Damasio refers to the process generating this sense as the *protoself*; the resulting “sense of self” relates roughly to what Erickson (1959) terms ego-identity.

Other self-representations are grounded in the flow of sensorimotor representations of the body’s interactions with objects (or people) in the environment over time. This flow produces a delineation of self vs. non-self and the emergence of a *protagonist* – a virtual entity that owns the experience of objects and events, as well as the body’s response to them. It lays the foundation for the production of both transient coordinated images of the self and schematic self-representations, just as recurrent experience with any object results in the development of images and schemas. At an

even higher level of organization, an *autobiographical self* accesses these images to organize and make sense of them, monitor the flow of experience, and simulate and plan future actions. This process – largely but not exclusively unconscious – feeds back to influence lower level self-representations (Damasio 2010; Donald 2001; LeDoux 2002).

Sociological accounts of the self and identities complement these neurological accounts. While beginning with social structure and providing far greater theoretical richness in describing the structural origins of identities, many (e.g., DiMaggio 1997; Stryker and Burke 2000; Stryker and Serpe 1994) suggest that identities reside in the brain as schemas. The account offered here overlaps, differing mainly in proposing that identities are virtual, rather than symbolic, structures in the brain.

In both cognitive science and sociological accounts, emotion pervades the process of self-formation. James (1890) may have been the first to emphasize this in his claim that “somatic markers” differentiate the self from non-self by attaching emotions and feelings to the objects of experience (defined broadly to include particular patterns of stimuli).⁹ Damasio (2010) simply elaborates this process, showing how the brain generates emotional responses that signal the salience and value of objects. Over time, those objects that trigger strong emotional responses are influential in shaping self-representations. In sociology, Identity Theory (Stryker 1968; Owens et al. 2010) similarly proposes that the salience of a particular identity will depend on the extent of and affective investment in social ties that are linked to the identity. Stryker (2004) and Burke (2004) also stress the role of affect in defining and organizing the self.

In a social world, particularly the world of a dependent youngster, the most relevant and valued objects that one experiences tend to be other people. Damasio's (2010) observation that social emotions engage the parts of the brain associated with constructing the self echoes Mead's (1934) insight that the individual self is a product of social interaction. The role of social interaction is central to structural symbolic interactionist theories of identity (Owens et al 2010, Stets and Burke, 2002, Stryker and Burke, 2000). Situated identity theory conceptualizes identity formation as a fundamental process of social perception (Alexander and Wiley 1981), a view shared by Ridgeway and Smith-Lovin (1994) who suggest that we learn who we are by "reading" and feeling the emotional reactions of others as they interact with and respond to us. The importance of social interaction and social emotion in building the human self should not surprise us: the self manages the organism's relationship to the environment, and human environments are overwhelmingly social.

Because so much of what makes up the flow of experience with the environment is cultural, the aspects of self that depend on this flow – identities - are formed largely in cultural terms (Damasio 2010; Gazzaniga 2011). This occurs not only through exposure to symbolic representations of cultural meanings but also, perhaps more significantly, their instantiations in practice (Bourdieu 1990). Identities are cultural, but never perfect replications of cultural ideals: the experiences that give rise to them are inevitably filtered through existing self-representations and tied to a deeply embodied sense of self (Damasio 2010). Stryker and Burke (2000) make a similar point, observing that identity

standards are filtered through perceptions related to the self and are not directly inferable from social locations.

The self is constructed from infancy on as a product of both mental activity and experience in the world, and as a product of both automatic and deliberative processes in the brain. Self-representations evolve in form and structure as development proceeds (Harter 1999). They are likely also to evolve in cultural content, as the child is exposed to new and more diversified culture through her routines and explorations. Thus, *identities* take shape gradually over the childhood years. In adolescence, their organization becomes more evident, a change prompted by developmental changes that make young people more concerned about the opinions of others and more aware of incongruence among their self-representations (Harter 1999). Likely as well in Western societies, the adolescent's movement into a larger cultural environment opens up new opportunities for cultural exploration, and hence, for defining the self in relation to cultural identities.

In this account, the self is a process through which emotionally supersaturated (DiMaggio 1997) self-representations in the brain are produced and reproduced over time. Two mutually dependent things set these representations apart from others – their emotional loading and their grounding in a deeply embodied sense of self. As part of the self, identities provide individuals with meaning – who am I? – and purpose – what should I do? (Owens et al. 2010). They are at least partially stable because the life experience through which identities develop is stably structured, because people form varying levels of commitment to identities, which then become more or less salient and

repeatedly invoked (Stryker and Burke 2000) and because, as discussed below, we tend to act in ways that maintain them.

The self in action

The idea that motivation for action is grounded in identity has been around for a long time. In a seminal article, Foote (1951) argued that an individual's "special pattern of identity" crucially influences which of many capacities a person translates into action. Foote (1951:18-19) suggested that when an identity is unambiguously held, it produces mobilization of "the organic correlates of emotion, drive, energy which constitute the introspectively-sensed 'push' of motivated action" and that "When doubt of identity creeps in, action is paralyzed." In many respects, Foote's early description of identity as habitual and taken for granted portrays an embodied view of identity not well represented in later sociological work.¹⁰

Gabriel Ignatow (2007:129) observes that "Theories of embodied knowledge allow sociologists to theorize motivation as both cultural and embodied, as rooted in more or less universal embodiments that are generalized and associated with ideas, images, and social situations in culturally specific ways." LeDoux (2002) provides an account of how this happens. He defines motivation as neural activity that guides us towards outcomes that we desire or away from those we want to prevent or avoid. He grounds this process in the emotional responses that flow from the brain's interpretation of objects as positive or negative. These emotional responses trigger automatic systems to direct the body towards particular actions. In effect, the brain is trying to resolve the disturbance caused by the emotion. The brain's representations of objects incorporate

embodied action-schemas, that is, ways of responding to the object (Garbarini and Adenzato 2004, Lizardo 2007). The emotional response of the brain focuses attention on these representations and suppresses attention to others. The result is an impulse to action that conforms with the brain's interpretation of the situation. This process is essentially a generalization of the mechanisms that produce homeostasis in the body (Damasio 2010). The same type of system that keeps the body operating within normal bounds is put to use to mediate responses to the social and cultural environment and to maintain the well-being of the whole self, including culturally derived identities.

The account above has a great deal in common with sociological accounts of the relation between identity and action, and particularly with the “control system” mechanisms that underlie Identity Control Theory (Burke 2004) and Affect Control Theory (Heise 1979, Smith-Lovin and Robinson 2006). Both theories take the maintenance of identities as highly motivating. Both relate motivated action to the intersection between existing identity-structures (both neural and cultural) and the patterns of stimuli that characterize a particular situation. In Identity Control Theory, deflections from the identity standard cause stress and negative emotions. In Affect Control Theory, identities have emotional meanings and their deflections motivate action to restore them.

Even before the brain generates motivation for some actions and not others, the self is playing a role in filtering what stimuli the brain attends to. As brain systems monitor and evaluate ongoing events, they direct attention to those environmental cues that are self-relevant – in other words, cues that activate schemas that are emotionally

weighted and tied to a sense of self. This link between self and attentional processes is well documented in behavioral studies: People are most attuned to cues relevant to salient identities when entering a situation (Burke and Reitzes, 1981).

The embodied self thus defines what is of value to the organism; it is the reference point for the brain's emotional response to objects in the flow of experience, and, therefore, for both the allocation of attention and the generation of motivation for action. If both a golfer and a tennis player see an advertisement for a sale on tennis equipment, their brains respond differently. The tennis player will be more likely to notice the ad, and if both notice it, it is the tennis player who will feel the impulse to go to the sale. The actions produced by this process then feed back to the self. We "own" our actions, and they contribute to the continued reshaping of self-representations and self-schemas.

Deliberative processes can play an important role in this drama (LeDoux 2002, Damasio 2010). Consciously or unconsciously, they can suppress impulses (motivations) to act, blocking the action from occurring (Bargh and Morsella 2008, Evans, 2008, Kahneman and Frederick 2005). For example, the tennis player may realize she has four rackets already and suppress the felt urge to buy another. Once developed, goals and plans also shape the automatic production of action (Donald, 2001). If our tennis player had formed a prior intention to replace her tennis shoes, the goal could have been tied to the self in memory, making the ad appear even more valuable and causing a more powerful emotional response.

This account of the self as the interface between the organism and its environment takes the perspective of the individual, in line with the goal of understanding individual action. The self arises out of both biological function and social interaction; it is composed of a vast jumble of incoherent images that is given coherence through the regularities of experience imposed by social structure, the action of a deliberative, story-telling mind (Gazzinaga 2011), and the association of self-meaning to a deeply embodied sense of continuity and sameness. But, as with cognition in general, a brain's-eye account of the self is a partial view. Just as the self manages the organism's relation to the environment, shared culture manages the social group's relation to the individual, and does so by, as Swidler says, "attaching meanings to the self." It is the multi-faceted interplay of mental structures and social worlds that create and re-create selves: the operations of the self in perceiving situations and motivating behavior *as well as* the impact of institutions, codes, and contexts on the perceiving self; the deliberative seeking-out of new experience *as well as* the automatic shaping of self by social experience.

Bringing Cognitive Science to Swidler's Account: Alignments, Expanded Insights, and Clarifications

An understanding of mechanisms is useful only if it helps to expand the understanding of higher order phenomena. Neil Gross defines social mechanisms as "*composed of chains or aggregations of actors confronting problem situations and mobilizing more or less habitual responses.*" Elucidating these "requires that we grasp how the relevant individuals understand the situations before them and act on those

understandings” (*Gross 2009: 368-369; italics in original*). As Gross argues, the exploration of individual-level mechanisms does not amount to methodological individualism. While, as Swidler persuasively argues, culture cannot be explained exclusively in psychological or behavioral terms, explanations of culture can benefit from knowledge of the cognitive mechanisms individuals rely on in learning, storing, and using culture.

Prior analyses of Swidler’s implicit model of cognition by Vaisey (2008, 2009) and Lizardo and Strand (2010) have focused on the tool kit concept and largely ignored the implicit cognitive model underlying cultured capacities. Yet, in a response to Vaisey (2008), Swidler (2008) suggests that, of the two concepts, that of cultured capacities (and strategies of action) is more influential in explaining the effect of culture on action. I argue that if mechanisms suggested by both the tool kit concept and cultured capacities are considered, Swidler’s account actually accords fairly well with what we know about dual-process cognitive models.

However, by bracketing the mental processes that link culture to action, Swidler lacks the tools to explicitly examine and reconcile the seemingly contradictory implications of her model. She places self and identity in a pivotal position between culture and action but misses out on important mechanisms that could strengthen and elaborate this linkage. Some parts of her account are barely developed – most notably her account of how people learn culture – and others, I argue, are unconvincing– most notably the assertion that culture affects action differently in settled and unsettled lives.

In the sections that follow, I propose several propositions about the interactions between culture and mental processes and explore their implications for Swidler's account.

Cognitive science clarifies that while we learn culture largely through automatic systems in the brain, deliberative processes also allow us to instigate actions that lead to new and/or selective learning. As noted above, Swidler does not attempt to provide an explicit account of learning. However, while she emphasizes examples that point to deliberative processes of learning in which people seek out new information and models in their symbolic environments, she also implies less agentic mechanisms that allow individuals to absorb cultured capacities through their experience in the world.

While it is clear that humans are powerful users of symbols, our capacity for manipulating symbolic information is seriously constrained by the limited capacity of working memory (Donald 2001). Other mechanisms for learning and processing cultural information therefore, are, necessary to explain human behavior. Growing knowledge about automatic processes in the brain fills out this story and provides the neural basis for Swidler's claim that culture "instills" cultured capacities in people. The structuring of habits of connectivity in neural networks through patterned experience instills far more cultural knowledge in the brain than deliberative symbolic learning alone could ever produce.

Swidler herself (2001: Note 3(p245) and 11(p247)) links her conception of cultured capacities and strategies of action to Bourdieu's notion of *habitus* (Bourdieu 1990, 2000). Bourdieu advanced a model of learning that is automatic, implicit, and

embodied over models that involve the linguistically mediated teaching of beliefs and values. Lizardo (2007, 2009), in turn, linked *habitus* to automatic processes in the brain that produce skills and habits, processes of classification, and implicit dispositions toward particular kinds of objects.

While some sociologists have interpreted Bourdieu as endorsing the passive absorption of cultural systems, Lizardo (2011) argues that his later work supports a different interpretation. Culture is not “imported into the mind” but rather “itself generated ... in the course of people’s involvement with others in the practical business of life” (Ingold, 2000:162, cited in Lizardo 2011). Once we set deliberative learning processes in motion, what we learn is not consciously controlled (Gawronski and Bodenhauser 2006). Nevertheless, deliberative processes and our ability to act in accordance with them provide a powerful mechanism for freeing individuals from reliance on passively experienced environmental exposures. Swidler(2001:N11(p247)), while characterizing Bourdieu’s view of the power of the environment to inculcate tastes and habits as too encompassing, endorses this same view, stressing the “conjunctures of opportunity, skill, personality, and occasion, as well as ...creative efforts to add new cultural skills” in the learning of cultured capacities.

Swidler’s comment on the importance of skill and personality as well as opportunity and occasion underscores the fact that learning is a path-dependent process. People perceive and filter new information in relation to existing habits of connectivity that represent schematic knowledge, skills, and tastes in the brain’s neural networks. At any one point, these habits are the cumulative result of a lifetime’s exposures to the

world, and they cannot be discarded or replaced at a moment's notice. Schudson's (1989) concept that an effective cultural message must have *resonance* for its audience conveys this same point. While Swidler's actors may move deliberately to adopt new cultural elements, they will do so only when drawn by their resonance with embodied schemas that they already hold.

Traditional notions of socialization in which sets of values and beliefs are passed down linguistically from parents to children are fully consistent with dual process models of the brain, although they provide an incomplete account. Swidler joins with Bourdieu (1990) in rejecting such models. As Lizardo (2009:721) points out, however, sociologists' tendency to think of socialization in this form has limited their implicit models of learning. The discovery of mirror neurons in the brain which automatically simulate other people's actions provides a mechanism that enables people to learn some culture simply by observing others, much as Bourdieu suggests (Lizardo 2007). Mirror neurons participate in translating observed motor activities into schematic representations associated with contextual and affective meanings (Garbarini and Adenzato 2004, Gallese and Lakoff 2005).

Stephen Vaisey (2009) suggests that exposure to evaluative discourse also plays an important role in shaping individuals' cultural understandings. In childhood, when neural networks are undergoing their initial and most dramatic structuring, parents provide a great deal of such evaluative discourse, along with rewards and punishments and models for practice (Quinn 2005). Because these parent-child interactions are deeply imbued with emotion, and experience accompanied by emotion produces stronger, more

durable learning in the brain (Damasio 1994), early experience is especially prone to establishing indelible schemas in the brain (Strauss and Quinn 1997). Socialization processes do not rely wholly on the articulation of linguistically encoded rules and knowledge, but it is part of the process, reinforced by powerful automatic processes that give meaning and value to what is taught.

These accounts of learning in the brain put the development of cultured capacities squarely in line with a dual process, embodied model, in which automatic as well as conscious and deliberative processes cooperate in sensing, filtering, and organizing knowledge in the brain. This broader understanding of socialization includes the crucial roles of parents and teachers in promoting cultural learning, but also recognizes that people “self-socialize” in many ways, through actions that expose them to new learning opportunities.

Culture is held in mind through “habits of connectivity” – the learned ability of neural networks to produce images and schematic representations of cultural knowledge when prompted by either external (in the world) or internal (produced by deliberative processes) cues. As many people have pointed out, even with the massive capacity of our brains, the volume of information needed for maintaining life and well-being in a complex cultural environment far exceeds what our neuronal networks can actively maintain in explicit, propositional form (Damasio 1994, Donald 2001, Martin 2010). The ability of the brain to produce representations of cognitive content thus depends in part on environmental cues, a process referred to as “scaffolding” (Clark, 1997). There is much evidence from cognitive science on the power of the environment to trigger thought and

action: studies of priming effects (e.g., Kahneman 2011) powerfully demonstrate the impact of contextual cues on mental function.

Scaffolding has been taken by some analysts to mean that the brain does not store representations of cultural knowledge (Mandoki 2002, Martin 2010) in any form. But scaffolding and automatic learning and retrieval processes of the brain are complementary (DiMaggio, 1997; Strauss and Quinn, 1997). Two considerations suggest the limits of scaffolding. The first is that the brain's perception and interpretation of incoming cues is dependent on prior learning. Scaffolding works well when such learning has occurred. Adopting an example from Swidler (2001), the label "Mother's Day" on a calendar prompts knowledge that we are expected to send a card and fears of what people will think if we don't. But these two words would mean nothing in the absence of prior learning and retention in virtual or explicit form by the brain of the codes, meanings, and feelings associated with them. The second consideration is that the cues that trigger the reconstruction of schemas by neural networks can come from inside the brain as well as from the external environment. Most of us can conjure up the image and sound of a baby without any external stimulus at all. In short, scaffolding cannot help at all in the absence of the habits of connectivity that neural networks develop over time.

In the long term, all cultural knowledge is held in the same basic way. Swidler's exchange with Stephen Vaisey over the importance of values and "moral intuitions" highlights a recurrent incongruity in her theory – that people could simultaneously hold

culture lightly while at the same time being constrained by cultural capacities that are difficult to learn and unlearn. But when we talk of culture being held shallowly or deeply, or lightly or ingrained, what we are really saying is that some knowledge is more intimately tied to the self than others. Contrary to Swidler's assertion, people cannot pick up and put down the self they inhabit: not only is the self deeply rooted in the body, it is itself a crucial mediator of action. What people *can* do lightly is learn cultural schemas and scripts, and if these do not become part of identity, they can also be discarded lightly (Strauss and Quinn 1997).

Culture affects action through both deliberative and automatic processes in the brain. It is impossible to say which is more consequential because the processes depend on one another. Cultural knowledge, learned and virtually stored by the brain, is returned to the domain of public, observable culture through action. Because we are aware of our actions, and have the sense of acting purposefully, we tend to think of action as the domain of deliberative processes. However, cognitive science has produced much evidence that this is, to some extent, an illusion: experiments show that people's actions often precede their conscious awareness of them (Gazzaniga 2011). This happens because schemas of objects in the world carry both embodied sensations indicating value and information about the actions the objects afford (Garbarini and Adenzato 2004). For example, when paramedics arrive at the scene of an accident, they appear to call on schemas suggested by the situation and take the actions suggested by the schemas; they do not typically engage in explicit reasoning about what to do (Klein 1999, cited in Evans

2008). Unless deliberative processes intervene to repress them, impulses formed in response to the activation of schemas result in action.

Despite this seeming affront to the notion of human intentional control, action can be purposeful without conscious planning or intention if it is produced in accordance with the goals and dispositions embedded in neural networks (Lizardo 2004, 2007). In fact, many neuroscientists argue that deliberative processes matter a lot in shaping action. Damasio (2010) suggests that action in-the-moment is produced through automatic processes, but by a brain molded and motivated to respond in ways consistent with goals formed through conscious deliberation.¹¹ Whether the sense of intentionality we have in acting is an illusion or real is a subject of debate (Evans 2008; Donald 2001), but it may be an inconsequential one. The evidence points to the collaboration of deliberative and automatic systems in producing action.

Culture affects action most significantly through the construction of the self, which acts in order to maintain the well-being of the organism in its environment.

Vaisey's argument that action is strongly influenced by moral intuitions parallels the account given here of the self in action. The self gives value to objects in the world and these values become embedded in schemas. Action does not occur unless motivated, and when a person acts, it is the values embedded in schemas that trigger the action. In this context, "value" takes on a different meaning than the traditional sociological concept of values explicitly expressed in symbolic form. As Swidler and many others have noted, the latter does not play a consistent role in producing action, but the former is directly involved in the production of action by the brain.

Swidler argues that it is the lightly held semiotic codes for observing Mother's Day and Secretary's Day, not deeply held cultural values, which precipitate a massive outpouring of flowers, cards, gifts, and office lunches. She later acknowledges that what gives the codes their power to motivate goes beyond the code itself (2001:168). What makes the codes powerful is their relation to a cultural identity that makes it important to be "a certain kind of person" – one that honors mothers and secretaries - and the threat of a public failure to meet this standard.

Culture affects action through the same mechanisms in settled and unsettled lives. What differentiates these situations is the fit between selves and environments. What differentiates the production of action in these situations is not whether culture directly or indirectly affects action but the extent to which deliberative processes are engaged to guide action.

Swidler's contention that culture affects action differently in settled and unsettled lives raises further ambiguities that may be addressed through a cognitive model of self. Swidler distinguishes "situations in which new strategies of action are being developed and tried out (unsettled) from situations in which people are operating within established strategies of action (settled)" (2001:89). As other analysts (Lizardo and Strand 2010, Schudson 1989) have observed, Swidler also evokes a further distinction relating to whether or not clear institutional structures exist to guide action.

In settled lives, Swidler asserts that people live with a loose fit between culture and action. She claims that deviations from culturally defined scripts and meanings are

widely tolerated and people are able to pick and choose from a menu of cultured capacities in developing strategies of action. As Lizardo and Strand (2010) point out, culture matters plenty in settled lives because people would not be able to organize their action without the skills and habits incorporated in cultured capacities. Even more serious for Swidler's argument, whether deviations are tolerated depends on the example one chooses. Cultural conventions vary dramatically in their significance for social interaction. Deviations from the shared meanings of language, scripts for economic exchange, and legal codes such as the rules for stopping at a stop sign cannot be tolerated because they threaten the very fabric of social life. The mechanisms proposed by Affect Control Theory (Heise 1979) are grounded precisely in the unwillingness of groups to tolerate deviations from established cultural meanings.

In unsettled lives, Swidler suggests that culture has a direct independent effect on action because it makes possible the adoption of new strategies of action. The main difference in the operation of culture in unsettled lives is that people seem to adopt new strategies of action as a whole, whereas in settled lives they construct strategies of action out of existing cultured capacities. In this case also, Swidler rests her argument on a particular example. The use of ideology as the exemplar of culture in unsettled lives confounds the coherence of ideology and the demands of ideological communities with the creation of new strategies of action. By her definition, it is true that individuals who adopt new ideologies have unsettled lives, but it does not follow that all those whose lives are unsettled adhere strictly to ideological belief systems. In all other respects, the mechanisms linking culture and action appear to operate similarly in settled and unsettled

lives. As Swidler (1986) herself points out, in both circumstances people may learn new cultured capacities (or even strategies of action) while continuing to rely on existing ones; in both circumstances, culture can be characterized as a menu of choices that people may or may not learn and use.

The notion of identity provides a firmer basis for conceptualizing the distinction between settled and unsettled lives. Swidler points to adolescence as another exemplar of unsettled lives. It is not that adolescents in western societies face an environment lacking in institutional supports, but that they are transitioning between worlds in which different institutional supports matter – from the world of family to the world of peers, work, and an expanded menu of cultural choices. What distinguishes their situation is a problem of identity, a *felt* insufficiency of existing internalized cultural models. The same is true for adults experiencing unsettled lives as a result of social change. In unsettled times, it is the larger environment and institutional structures themselves that are disrupted, but what individuals *feel* is a threat to identity in the form of a dislocation of the fit between their existing cultural capacities and strategies of action and their environment. Whether this dislocation occurs depends on individuals' identity structures. When they do, they will trigger emotions that spur the self to action designed to repair the damage. Deliberative systems are highly likely to activate under these circumstances. This can result in the kind of identity work that Swidler chooses to highlight. However, the kind of direct adoption of external culture exemplified by joining a cult is only one possible response. Individuals can change their lives to escape from the source of dislocation (e.g., by quitting a job or moving to Canada) or, as suggested by Affect Control Theory and other

identity theories, by redefining the self, others, and actions in ways that bring meanings back into alignment (e.g., identifying cult members as “crazies”). Whatever identity work occurs will be grounded in some way in the existing organization of self-schemas and cultural identities; it will not be plucked randomly from the environment (Strauss 1997).

Does culture affect action differently in settled and unsettled lives? By restating the concept of settled and unsettled times in terms of the fit between internal identities and experience in the world, attention shifts to the interplay of automatic and deliberative processes in guiding action. These processes are interdependent and both are continuously in play. However, as Lizardo and Strand (2010) suggest, unsettled lives are more likely to trigger the operation of deliberative functions in problem-solving, whereas settled lives permit a more uninterrupted reliance on automatic systems. Culture affects action through similar mechanisms under both sets of circumstances: through providing patterned experience that establishes “a certain kind of self” as well as opportunities, filtered through the established self, to modify the self through exposure to new experience.

Tackling Unanswered Questions

At the end of *Talk of Love*, Swidler raises a series of questions that deserve further exploration: Is culture coherent or incoherent? What are the logics of culture? and What kinds of culture matter? I argue that integrating a model of mind into an understanding of culture helps to answer all of these questions.

Swidler rejects the idea that culture forms a system with a consistent and coherent underlying logic and suggests that it is precisely culture's incoherence that allows people to be flexible and adaptable in their lives. She finds that "when discussing their own life experiences, people first anchored themselves in a context – a real or imagined situation – and then derived beliefs or arguments from that situation" (2001: 186; see Strauss 2012 for a similar argument). She says that "what structures such framing processes, and how people keep multiple potential frames on hold, seem central questions for cultural analysis" and that "We still understand far too little about how people know what situation they are in and what codes apply" (2001:185-186).

The model of mind emerging from cognitive sciences begins to supply the answers. People can know a great deal of incoherent culture and use it coherently in specific situations because brains automatically learn cultural knowledge in contexts that, as Swidler suggests, are structured by institutional orders. The brain's habits of connectivity tie schemas about objects and actions to knowledge about situational contexts. Faced with a new situation, automatic systems in the brain take advantage of environmental cues to trigger the reproduction of the schemas that provide the best fit. When automatic systems fail, deliberative systems can search for other schemas that can be used to interpret the situation. This is not just a story about brains, or a story about institutional orders, but about the interaction between the two. The coherence and flexibility of culture cannot be understood without both.

We know, of course, that culture cannot be entirely coherent or it would provide little opening for endogenous change. One of the reasons culture can be variable, both across individuals and over time, is because of the part played by the human brain. In *Social Mindscapes*, Zerubavel emphasizes “the considerable amount of control society has over what we attend to, how we reason, what we remember, and how we interpret our experiences” (1997:17). This is a “fax model” of learning (Strauss, 1992), a model of social determinism in which people absorb meanings and scripts unaltered from the social world. But, because individuals bring different selves to an encounter with the same object or action, they will inevitably perceive, interpret and respond to it in different ways. In addition, because the brain does not store information but recreates it on demand, something inevitably happens to cultural knowledge when it passes through people’s heads and back out to the world (Carley 2001). The recreations or simulations will differ from the original image, depending on intervening experience and the contingencies of the situation. This role of the mind in *re*-processing cultural knowledge is thus an important element in the evolution of culture in the world.

Swidler’s second set of questions focuses on cultural logics:

“Part of what we mean by cultural explanation is that some logic internal to culture itself drives social processes. Yet we understand all too little what we mean by various claims that particular cultural processes have a logic, and we know less about how much those logics are constraining” (2001:204).

These questions also invite us to attend both to mental processes and structures in the environment. Swidler reviews many kinds of logics suggested by social theorists,

including deductive logic; binary oppositions, narratives, homologies, resonances, resemblances, and logics imposed by institutional orders. I agree with her emphasis on the importance of institutions in shaping cultural logics, but the remaining “cultural” logics reflect mechanisms found in the brain. Deductive logic is a product of the mind’s deliberative abilities; narratives, a module in the brain that makes sense of information by fitting it into a story (Gazzaniga’s (2011) *interpreter*). Binary oppositions may be grounded in the brain’s assignment of positive or negative valence to incoming stimuli and resonances, homologies, and resemblances in automatic pattern recognition systems. These capacities find their way into cultural logics because they are the way human brains work. The substantive content – how we distinguish madmen from the sane, for example, or what narratives are continuously reproduced, or whether “working on a marriage” can solve the conflicting imperatives for marriage to be both enduring and rewarding (Quinn 1996) – is provided by culture. As Swidler suggests, this cultural content emerges out of the practical problems generated within institutional orders. But of course institutions themselves are profoundly cultural, and their reproduction not only depends on the codes and rules they entail but also the actions of people in adhering to the codes. Thus, the “logics” we see in culture are the product, again, of the interplay between brain and environment.

The third set of questions Swidler raises is whether some cultural elements are more powerful than others in organizing social processes or other parts of culture. Here, as throughout *Talk of Love*, she rejects the idea that “deep” schemas are more powerful in producing action. She draws on Biernacki’s (1995) comparison of conceptions of labor

in England and Germany to demonstrate that taken for granted, unconscious schemas that are neither enduring nor embedded in “deep conceptual assumptions” can nevertheless shape cultural practices in powerful ways. Her point is well taken: many elements of culture can be structured by schemas that are foundational without being highly consequential for people’s interests. Shore’s (1996) discussion of the concept of modularity provides an example of a schema that pervades American culture but has little direct impact on people’s well-being. Such schemas are deep only in the sense of giving rise to many instantiations.

Other schemas, however, may be deep in a different sense. Swidler interprets Biernacki’s account as suggesting that the most influential elements of culture are those that capture the interests of groups engaged in “structured antagonisms” (2001:211) such as labor and management. If, as I have argued, depth implies not unconsciousness but a close relationship to self, Biernacki’s case makes perfect sense. The schema of labor as production of goods is consequential for how people are paid, but it is not necessarily consequential to the well-being of an individual self. It can be replaced easily. What can’t be replaced is the schema of compensation for labor, because this schema is fundamentally consequential for well-being. Those schemas or institutional logics that address the most basic solutions to problems of human well-being will have the most enduring effects on culture.

Conclusion

Swidler's account of culture in action is a rich and insightful exposition of how culture, as part of a socially structured world, is used by individuals to shape their actions. I have argued that despite her reluctance to adopt an explicit model of cognitive function, her account is largely consistent with current models of cognition in the psychological and brain sciences. At the same time, her failure to adopt an explicit cognitive model leads to ambiguities and apparent inconsistencies, such as the difficulties with reconciling models of culture as lightly and deeply held, a limited model of socialization, and problems in her discussion of cultural action in settled and unsettled times. Swidler's characterization of her account as an identity model further underscores the problem of eschewing cognition. Identity is part of self, and self is the mediator between the organism and environment, between the actor and his culture. Taking on Swidler's suggestion, I have integrated neuro- and cognitive science and sociological theories in a model of identity that describes how this mediation plays out, and how action is produced out of the cultural meanings incorporated in the self as identity. I have attempted to show that the model helps to clarify and adjudicate the difficulties identified in Swidler's account of culture in action.

Running through these analyses is the theme that we can't answer questions about culture by looking at culture alone. Culture operates as part of a multi-level system that links symbols with human thought and action. For many years, cultural sociologists have focused on a narrow view of culture, one of symbols "in the world." This focus was an effort to, in Geertz's words, cut "the culture concept down to size ... [into] a narrowed, specialized and ... theoretically more powerful concept." (Geertz, 1973: 4, quoted in

Keesing, 1974). In this paper, I ask whether this focusing has come at a cost, and whether it is time to again broaden the scope of cultural analysis, taking advantage of new knowledge from cognitive science.

One cannot reason about the import of symbols without drawing in the human minds that participate in interpreting and propagating them (Hannerz 1992). As Strauss and Quinn (1997) argue, cultural meanings have to be in the brain because the brain is the only place in which meanings can take concrete form (in the form of synaptic connections; see also Reyna 2002). Further, because of the way the brain has evolved, much of what instills culture in the brain may stretch our concept of the symbolic: for example, it includes a father reading to his son or a girl attending a college class. These everyday practices instantiate shared meanings about parenthood, education and gender roles as or more effectively than symbols (Bourdieu 1990). In fact, it is their typicality and integration with the flow of life, and the fact they link themselves so often to interpersonal relationships weighted with emotion and salience, that make them so effective in the production and reproduction of cultural meanings.

I argue that culture has to be understood in terms of the whole system. This includes symbols, signs, and practices that instantiate culture in the world as well as the institutions, codes, and social and physical contexts that structure these instantiations. It also includes the processes through which cultural meanings are structured in the brain, incorporated in the self, and deployed again in action that again instantiates cultural meanings in the world (Quinn and Strauss 2006). The study of symbols alone cannot help us understand how culture affects individual actions, what makes it shared or variable,

what kinds of culture matter, or how culture reproduces itself and evolves. By focusing on the individual human actor in this paper, I am focusing on one part of cultural process, one that is embedded in a crucially important web of social phenomena. But it is also important not to create a false separation between the reality of the individual actor and those of social institutions and structures. It is rare that the behavior of any one individual transforms culture, but culture cannot be changed, even through institutional actors, without the involvement of behaving individuals.

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Footnotes

¹ Google Scholar, accessed 6/25/12.

² I use the terms brain, mind, and mental interchangeably. Although others often distinguish them, the interdependence of neural mechanisms and mental function is well established and central to the paper's argument.

³ It figures less prominently in *Culture in Action*. There, Swidler suggests that to adopt a particular line of action, one needs not only the "cultural equipment" needed to pursue it, but also "a sense that one can read reasonably accurately (through one's own feelings and through the responses of others) how one is doing" (1986: 275).

⁴ I use this phrase to refer both to Hebbian plasticity, in which the concurrent firing of neurons strengthens the synapses among them, and also to connectivity produced by

synchronous oscillation of neurons in the brain (Buszáki 2006, Damasio 2010). The phrase implies that neurons may work together to produce images even in the absence of direct synaptic connections.

⁵ This model of learning in the brain stands in sharp contrast to models that assume that the brain stores knowledge much in the way we express it linguistically – that is, in the form of symbols linked together according to rule-based logics (see D’Andrade 1995 and Fiske and Taylor, 2010 for reviews). That we can and often do learn information expressed in symbolic form is clear. However, propositional knowledge must inevitably connect with knowledge stored through automatic processes to fill in the context and material necessary for full semantic meaning. Compared to automatic processes, propositional learning is an inefficient, serial process.

⁶ This process has been modeled by connectionist or parallel distributed processing (PDP) models of the brain, popularized by Rumelhart in the 1970s (Rumelhart and McClelland, 1986; see also Churchland, 2002 and Smith 1996) and applied to the understanding of cultural cognition by Strauss and Quinn (1997). PDP models are computational models composed of layered networks of units which, given a set of inputs and a training process, can produce outputs that capture semantic knowledge. The models can represent meaningful concepts, differentiate categories of objects, generate propositional rules, and closely mimic how cognition seems to function in real life. The “knowledge” generated by this system is embedded in the form of weights that determine how the activation of one unit activates others in other layers of the system.

⁷ Some sociologists use other terms as well, e.g., self-structures (Stryker and Burke 2000) and self-concept (Demo 1992), to refer to internalized cultural meanings attributed to the self.

⁸ Swidler (2001) makes this explicit when she posits that people hold themselves “distant” from culture they know.

⁹ James’s concept has roots in the pragmatist concept that people come to know objects in the world in terms of their uses for them (Ritzer 2010).

¹⁰ Foote (1951) emphasized the role of language in establishing identities in the context of interaction, but he also suggested that “Value is discovered in experience, and once experienced is permanently registered in the organism. The abstractions are not motivating.” And further that “In most situations our identity is so completely habitual and taken for granted that we virtually ignore its presence or relevance in our reactions.”

¹¹ Gazzaniga (2011) provides a similar account emphasizing the ability of deliberative, conscious processes to constrain automatic processes.