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A confusion of tongues: On the origins of cognitive sociology

Abridged dissertation introduction (University of Copenhagen)

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Abstract

This paper briefly covers the history of culture and cognition -research in broad strokes to illustrate how we ended up in a situation where ‘cognition’ is a foreign term to culture researchers (as is ‘culture’ to many cognitive scientists). It describes the separate developments of cognitive science and cultural studies, and the subsequent developments cultural sociology drawing heavily upon the latter while being largely disconnected from the former. Finally, the paper describes the emergence of cognitive sociology and its two main approaches that I label isolationism and reductionism. However, this chasm is a product of how the conceptual vocabularies of cognitive science and cultural sociology developed in relative isolation of each other. The paper is an abridged online version of a doctoral dissertation introduction.

Keywords

Cognitive sociology, Culture-Cognition Interaction, History, Cognitive Science, Cultural Sociology, Conceptual Frameworks

Introduction

The ancient question of nature versus nurture has been at the epicenter of the social, behavioral, and cultural sciences since their foundation. The question inevitably involves any field or discipline that studies human behavior in some way. It can be argued that just about any human behavior is more or less innate or learned and, at times, the legitimacy of entire disciplines has been based on the importance of one or the other (usually nurture). New scientific advances are giving us the tools to give better answers to these questions. Contemporary cognitive neuroscience has given what may seem like a lackluster answer: that both nature and nurture matter in almost any behavior. This claim is, however, very different from the early twin studies which showed that about half of all variance in personality traits could be attributed to environmental factors, an approach which assumed that nature and nurture are two sets of separate factors competing to influence the same behavior. With the models of cognitive neuroscience, we now have a much better understanding of how nature and nurture *interact*.

If there is any one thing that characterizes human beings in the eyes of the cognitive scientist, it is that we are hardwired to learn and adapt. It is in our innate nature is to be shaped by our environments. Insights from biological epigenetics have demonstrated that environmental factors influence how genes are expressed, which is an incredibly interesting field in itself. Even more exciting, however, is that cognitive neuroscience has shown how the human brain constantly adapts to experiences. Through what has become known as *activity-dependent neuroplasticity*, the brain physically restructures its synaptic connections to form neural networks corresponding to recurring experiences (Doidge 2007; Ganguly and Poo 2013; Pascual-Leone et al. 2005). This plasticity is automatically and continuously ongoing since neural connections are strengthened through use, meaning that experiencing and learning are simultaneous. By adapting to experiences, the brain operates as efficiently as possible in any given environment.

The implication of activity-dependent neuroplasticity is that all experiences and environments potentially matter. This, in turn, gives historically unprecedented importance to social and cultural factors, since cultural sociologists would argue that virtually everything we experience is socio-culturally shaped, from the physical environments in which we live to the relationships we form, the food we cook, and the way we fall in love. Because of how our experiences constantly shape our brains to fit our cultural environments, cognition alone cannot explain

why people do what they do, just as culture alone cannot explain the micromechanisms of action. Understanding culture-cognition interaction is now more important than ever.

The crux is that while we have a relatively good understanding of cognition, and sophisticated frameworks for understanding the production, change, and effects of culture, we lack a detailed model of how one affects the other, that is, how culture translates into cognition or the other way around (Danna 2014). To make things worse, contemporary culture and cognition researchers do not even speak the same language. Our theories, views on science, methods, and basic vocabularies differ significantly. These surface incompatibilities of culture and cognition research and the lack of middle-ground research have a common cause in the long history of academic compartmentalization, separating disciplines studying the mind from those studying cultures or societies (see next section).

The relative isolation of culture and cognition research has led to decades of limited communication, and the development of what DiMaggio (1997:264) referred to as mismatched “modal intellectual styles.” Even the most basic of concepts are often used in vastly different ways; to many cognitive scientists, ‘culture’ is but art and traditions, and to most cultural sociologists ‘cognition’ is simply equated with thinking. The way these terms are understood reveals a reliance on a layman’s conceptions of the other’s research object, which makes it all too easy for each to dismiss the other as irrelevant. Yet, in actuality, the two concepts largely overlap: cognition involves the mental processing of experienced patterns, and culture, the social patterning of experiences.

In the two decades since DiMaggio’s paper was published, the growing subfield of cognitive sociology has sought to study the overlap of culture and cognition by embracing cognitive science as a means of better understanding culture. The research object of cognitive sociology is, thus, a niche middle ground: while cognitive scientists generally work towards understanding the *universal* mechanisms of cognition, cognitive sociologists study *culturally specific* mechanisms of cognition. This concerns questions of how environments and experiences shape cognitive mechanisms in socio-culturally structured ways, which, in turn, produces groups of people who share similar ways of understanding the world.

The most appealing claim made by cognitive sociologists is that contemporary cognitive science is, in fact, not as incompatible with sociological frameworks as our divergent vocabularies makes it seem. These researchers have repeatedly shown that many sociological ideas and insights from cognitive science converge in a broad range of sociological fields of

research (Brekhus et al. 2010; Cerulo 2002, 2010b; DiMaggio 1997; Shepherd 2011). Such previously unexplored possibilities for synergy have already been proved to be fruitful by several noteworthy empirical studies published in top-ranking journals (see, for example, Cerulo and Ruane 2014; Frye 2013; Hunzaker 2014; Martin and Desmond 2010; Vaisey 2009). Cognitive sociology keeps growing, but it is still a minority movement limited to a select few researchers whose work speaks mainly to the already initiated. A broader engagement between sociology and cognitive science is still hampered by the conceptual mismatch that cognitive sociologists have largely failed to overcome. On the one hand, cognitive sociologists have failed to do this because of a pervasive sociological resistance to reductionism, ‘psychologization’ of culture, or anything that might discredit their theoretical tradition of choice. On the other hand, the cognitive sociologists who most strongly advocate the value of cognitive science tend to end up arguing for ‘the cognitive turn’ as a turn *away from* classical cultural sociology (c.f. Lizardo 2015). However, this position risks fueling the fears of many sociologists and further alienates them from cognitive science. Furthermore, moving away from classical cultural sociology means that we would lose the synergic potential of making good use of previous insights (assuming that cultural sociology has produced some meaningful knowledge in the last few decades). At a time when sociology suffers from theoretical fragmentation, we do not need another turn away from the old, but a move *towards* integration (Szelenyi 2015).

Joint beginnings and early developments

As all sciences, sociology and psychology shared their history and origin in philosophy before becoming independent academic disciplines. Psychology, the first of the two to become an independent science, was divorced from philosophy in the middle of the 19th century. The establishment of this new discipline was largely due to the combined ambitions of a number of famous medical doctors who all shared an interest in understanding the mind scientifically. In 1875, William James, then a physiology instructor at Harvard, started a small laboratory to demonstrate psychological experiments in his courses. In 1879, Wilhelm Wundt, a medical doctor, founded the first laboratory dedicated to experimental psychology. Another physician, the neurologist Sigmund Freud, was extremely influential as he developed psychoanalytic theory in 1890. Freud and psychoanalysis changed psychology forever, but most important in

this context is the early 20th century Anglophone counter-reaction to Freudian psychology and introspection: behaviorism.

Behaviorists viewed consciousness and subjectivity with skepticism and argued that these could not be studied scientifically—in a positivistic sense—and should, therefore, not be considered the research object of psychology as a scientific discipline. To be considered a real scientific discipline, psychology would have to be modeled on the natural sciences and confine itself to objective measurements and the conventions of ‘the scientific method’ (Ash 2010). Consequently, behaviorism redefined the research object of psychology from the human mind to observable human behavior. They turned to experimental methods resembling those of the natural sciences in order to rigorously study behavior. When human beings could not be used as test subjects, animals were often used, such as in the famous experiments by B. F. Skinner, John Watson, and Ivan Pavlov. During this time, vibrant communities of psychoanalysts and practitioners of other traditions of psychological theory continued to thrive, but behaviorism came to dominate psychology as a scientific field for most of the first half of the 20th century. Behaviorism therefore heavily shaped mainstream psychological frameworks in a naturalistic direction, drawing on the methodologies and terminologies of the natural sciences (for example referring to ‘the organism’ and its ‘response’ to different ‘stimuli’).

When sociology was founded, not long after psychology, it was in also in a time and place where natural science was the only model of ‘real’ scientific research. Sociology was established as an independent academic discipline by the turn of the 19th century and was, to some extent, a reaction against psychology. Of the founding fathers, commonly identified as Max Weber, Karl Marx, and Émile Durkheim, the latter was probably the most influential in arguing for sociology as a distinct academic discipline separate from psychology. Durkheim (1897) did this by proving that suicide—which was considered a phenomenon pertaining to individual minds—was, in fact, influenced by social conditions. However, Durkheim did not only show that ‘the social’ was a legitimate research object, independent from ‘the mental,’ but did so by adopting a methodology and vocabulary borrowed from the natural sciences, such as physics, referring to ‘social facts’ and searching ‘social laws’ similar to natural laws. In doing so, however, Durkheim played a critical role in legitimizing sociology as a science.

The genealogical pattern here is quite similar to that of history of psychology; we see reactions against something previous, and a successful legitimization through an adoption of the well-established and successful frameworks of natural science. While the social sciences would

eventually develop more distinct vocabularies, a reverence for the natural sciences and a desire to replicate their scientific success largely shaped the terminologies and methodologies of early social science. A productive consequence of building upon the natural sciences was that researchers from different disciplines shared a more or less positivistic philosophy of science and a similar basic vocabulary.

That the early social sciences shared some conceptual vocabularies is evident when looking at many of the influential theorists of the first half of the 20th century. George Mead and Charles Cooley, for example, used a language and ideas that were highly accessible to both sociologists and psychologists when developing middle ground theories where the social and the mind interacted heavily. Mead, for example, argued that the psychological self was in fact socially constituted; yet he did so while referring to stimuli and organisms, and calling himself a ‘social behaviorist’ despite theorizing about mental events. In similar ways, many social science frameworks largely overlapped at this point, and interdisciplinarity seemed natural. To Cooley and Mead, it made little sense to separate the study of the mental from that of the social; understanding the mind required an understanding of social processes, and understanding society necessitated an understanding of the human mind:

“When we study the social mind we merely fix our attention on larger aspects and relations rather than on the narrower ones of ordinary psychology.” - Cooley (1909:3)

The Second World War and immediate postwar period had a big impact on the direction of the social sciences, including sociology and psychology. Both disciplines grew substantially and were subject to a massive Americanization as the United States became the epicenter of science instead of Europe (Haney 2008). With this came a style of research in both fields that emphasized strong methodological empiricism (Backhouse and Fontaine 2010). The war had required the practical application of the social sciences and consequently the clinical side of psychology expanded and data collection and statistical analysis became increasingly central to sociology, which had previously viewed itself more as a ‘base science’ in social science, with a role akin to physics in the natural sciences. This empiricism ensured continued reliance on naturalistic frameworks, and a focus on practical applications that required many social

scientists to interact across disciplinary boundaries in concrete fields of research and application.

Both sociology and psychology have always been somewhat fragmented disciplines, and strong alternative theoretical and methodological frameworks have always existed in both alongside the dominant paradigm (Ash 2010; Platt 2010). However, the period around the middle of the 20th century saw an unprecedented dominance of mainstream positivistic frameworks in both disciplines. Importantly, sociological and psychological empiricism remained largely compatible due to shared positivistic view of science, similar views on human action, and an overlapping conceptual vocabulary, with concepts such as ‘attitudes’ playing an important role in both disciplines. There were, of course, some disciplinary jargon and discipline-specific theoretical frameworks, but they made intuitive sense and were relatively accessible to each other, which made interdisciplinarity relatively unproblematic.

Separate revolutions and new possibilities

Things started to change in both sociology and psychology in the 1970s—due to a mounting critique of the positivist philosophy of science—but in two very different ways (Backhouse and Fontaine 2010). However, both of the different streams of critique that led up to the changes in the 1970s had origins already in the 1950s. The critique that eventually led to the cognitive revolution in psychology originated from psychologists who in the 1950s started to question whether the discipline could even call itself psychology if it did not study the human mind. A critical intervention in the development of cognitive science came from outside of psychology as linguist Noam Chomsky in 1959 published a critique of the leading behaviorist Burrhus Skinner’s book ‘Verbal Behavior.’ This outside influence, with its strong refutation of behaviorism, eventually became one of the founding documents of cognitive science (Newmayer 1986). Simultaneously, the computer metaphor and information-processing model of the mind were becoming increasingly popular as computer science grew, and became the dominant view of the human mind by the 1980s (Mulder 1983). With them came terms and ideas that suggested that people are essentially information processors who ‘encode,’ ‘store,’ and ‘retrieve’ information.

From the start, cognitive science relied on many more influences from outside of psychology and evolved as a highly interdisciplinary collection of researchers who considered the mental

more important than the behaviorists had recognized. In addition to cognitive and experimental psychologists, the founding disciplines included linguists, anthropologists, philosophers of the mind, and artificial intelligence researchers (Ash 2010). Yet, despite such a broad group of researchers from widely different backgrounds, cognitive science was united by sharing the information-processing framework and vocabulary (Mulder 1983). However, despite developing as a strong reaction against behaviorism, cognitive science nonetheless continued to rely on the dominant positivist philosophy of science already established in psychology—which emphasized not only rigorous scientific methodology but also a mechanistic and reductionist view of the mind—and alternative approaches, such as ‘interpretativism’ and phenomenology, remained heavily marginalized (Ash 2010).

The cognitive revolution was probably the most important event in the history of the scientific study of the mind, but a very different revolution of equally unparalleled importance took place simultaneously in the study of culture (Jacobs and Spillman 2005). Just like cognitive science, cultural studies was an interdisciplinary project that developed initially in the late 1950s and grew throughout the 1960s and 1970s. Cultural studies united researchers from different backgrounds against a perceived negligence of the role of culture in social science. The similarity with how cognitive science developed as a reaction against behaviorism’s negligence of the mind is striking. However, the ambition of cultural studies to understand how cultural meanings are produced, changed, contested, and tied to power, necessitated a research approach quite different from the positivistic methodology of cognitive science. In the 1960s, there was a surge in qualitative methods as opposed to the previously dominant survey-based statistical analyses in the social sciences (Platt 2010), and alongside this, constructionist and relativist frameworks grew, which were more suited to the study of meaning than a naturalist view of knowledge.

In the 1970s, what is now known as the ‘cultural turn’ in sociology took place. The cultural turn would emphasize the causal and socially constitutive role of culture, a new focus of sociological research that led to the birth of cultural sociology (Alexander 1988). Jeffrey Alexander (2003), who is said to have introduced the term ‘cultural sociology,’ argued that culture ought to be viewed as an independent causal variable instead of a dependent one, a new and specifically cultural approach to the constitution of social structures. Among the key theoretical works that set the tone of the cultural turn and cultural sociology were Geertz’s (1973) *The Interpretation of Cultures*, Foucault’s (1977) *Discipline and Punish*, and Bourdieu’s

(1977) *Outline of a Theory of Practice*. These were all, to some extent, outside influences on sociological theory, but provided much of the foundation upon which cultural sociology grew in the 1980s. This meant, however, that cultural sociology relied on a vocabulary and frameworks very different from those of cognitive science, originating from French philosophy, symbolic interactionism, and literature studies.

Most of the social sciences had experienced a ‘cognitive turn’ by the very end of the 20th century, and many developed subdisciplines as a part of the cognitive science project (Ash 2010). Anthropology, for example, had already had its cognitive revolution in the late 1950s and 1960s and was an early part of the interdisciplinary project (Shweder 2012). Cognitive anthropology blossomed during the 1970s and, in 1981, Roy D’Andrade proposed a division of labor whereby psychologists study how people think while anthropologists study what people think (Bender, Hutchins, and Medin 2010). This idea necessitates a great deal of compatibility and overlapping conceptual frameworks between the two disciplines.

This is not to say that cognitive anthropology has not had its challenges, however. Anthropology has been, and remains, at the margin of cognitive science. This is not so much due to rejection from cognitive scientists, however, but to continued skepticism from other anthropologists (Boster 2012).

A similar skepticism seems to have permeated all of sociology, which has been the exception among the social sciences in that it never had a significant cognitive revolution (Bergsen 2005; Danna 2014; Lizardo 2014; Strydom 2007b). Other than this general skepticism among sociologists, there may have been several other reasons that cultural sociology has never engaged with cognitive science. As mentioned, cultural sociology relied on a vocabulary and scientific framework very different from that of cognitive science, which developed out of and against behaviorism. One may ask why engaging with cognitive science would have been easier for anthropologists, but anthropology engaged with cognitive science much earlier, before the cultural turn in the 1970s. Cultural sociology was still in its infancy in the 1970s and was largely shaped by frameworks very foreign to cognitive scientists.

Towards a Cognitive Cultural Sociology

Reasoning about the relationship between culture and cognition can be found in sociology long before the growth of cognitive science. Fleck (1935), for example, used the notion of ‘thought

collectives' to discuss how social communities tend to share certain worldviews, styles of thinking, and ideas about 'truth'. Simultaneously, Mannheim (1936) argued that social structures and mental structures interact and that the cognition of individuals is a product of the communities to which they belong. Perhaps most explicitly cognitive among the classics are Berger and Luckmann's (1966) influential theory of the social construction of reality. Their theory emphasized the role of cognition and mental schemas acquired through social interactions; a contrast to most constructionist work that followed, wherein the cognitive was often excluded and sometimes even seen as being in opposition to the whole idea of social construction.

The first use of the term 'cognitive sociology' is commonly attributed to Aaron Cicourel who, in 1973, published a book titled *Cognitive Sociology: Language and Meaning in Social Interaction*, which emphasized the role of language and interpretation in social interaction and argued that this, rather than abstract social structures, is what sociologists should concern themselves with. However, Cicourel's book did not quite catch on and establish a cognitive sociology at the time, probably because the mainstream sociological vocabularies and frameworks were as incompatible with his ideas as his writing was difficult. An *American Journal of Sociology* reviewer of the book, Irwin Deutscher (1975:174), notes that:

"Aaron Cicourel frequently seems to me inarticulate, obtuse, and utterly incomprehensible in this collection of his essays...I recommend this volume only to those sociologists who are terribly dissatisfied with the state of the field and the direction of the mainstream...I do not expect most sociologists to read, much less to understand, this important little book..."

Perhaps the times were not yet ready for a cognitive sociology, as there was still a great distance between insights from cognitive science and those from cultural sociology. It would be two and a half decades until the next two big landmarks in the history of cognitive sociology appeared, both in 1997. That year, Eviatar Zerubavel (1997) published *Social Mindscapes: An Invitation to Cognitive Sociology*, wherein he presented his approach to social cognition in a way that turned out to be more accessible and consequential than Cicourel's (1973) book had been. However, when arguing that cognitive science cannot explain culturally idiosyncratic cognition, Zerubavel saw the need to develop his own separate conceptual framework. Like

Cicourel before him, Zerubavel thus used the prefix ‘cognitive’ to signal a kind of sociology concerned with mental processes, rather than a sociology building upon cognitive science (Danna 2014). This type of cognitive sociology was still not directly engaged with cognitive science, but an autochthonous cognitive sociology based on self-devised theoretical frameworks (see DiMaggio 2002). This approach certainly produced valuable insights, but instead of contributing to synergic interdisciplinary dialogue, it reproduced what Lizardo (2014:987) later referred to as “sociology’s routine sense of self-sufficiency” and Cerulo (2014a) described as a self-imposed isolation. This will later be referred to as the isolationist approach to cognitive sociology (see next section & table 3).

In the same year, Paul DiMaggio (1997) published his seminal paper “Culture and Cognition” in the *American Sociological Review*. DiMaggio suggested a different approach, which likely contributed to the wave of interest in cognitive sociology that followed. In contrast to authors such as Cicourel (1973) and Zerubavel (1997), DiMaggio acquired his conceptual vocabulary and knowledge of the mind directly from the cognitive sciences. DiMaggio also explicitly tied those insights from cognitive science to issues central to cultural sociology. Thereby, he showed that there was now substantial common ground in the conclusions and intuitions of cognitive scientists and cultural sociologists, despite a surface mismatch of “modal intellectual styles.” DiMaggio recognized the problem of mutual conceptual illiteracy but argued that beyond surface vocabularies, cognitive science, in fact, confirms and supports many ideas from cultural sociology. Unlike the isolationist approach, DiMaggio argued for a cognitive sociology building on cognitive science and bringing it into the service of cultural sociology.

Much has happened in the two decades since DiMaggio’s paper was published, and cognitive (cultural) sociology has established itself as a small, but lively and fruitful, subdiscipline. Since DiMaggio urged cultural sociologists to seriously consider cognitive science, several special issues on cognitive sociology have been published in influential scientific journals (Cerulo 2010a, 2014b; Strydom 2007a), conferences have been held, and several important books have been written, including the anthology *Culture in Mind* (Cerulo 2002), Wayne Brekhus’ *Culture and Cognition* (2015) and the upcoming *Oxford Handbook in Cognitive Sociology* (Brekhus 2017).

The increasing interest in cognitive sociology is encouraging, but the future relationship between (cultural) sociology and cognitive science is still up for debate. This uncertainty was recently explicated in debates about the future of cognitive sociology by leading researchers

such as Karen Cerulo, Karen Danna, Gabriel Ignatow, Omar Lizardo, Victoria Pitts-Taylor, and Hana Shepherd in a 2014 special issue of *Sociological Forum* (see Cerulo 2014b). Despite some differences, however, these researchers shared the sentiment that sociology had, not yet had a fully-realized cognitive turn at that point, that the isolationist approach to cognitive sociology is fruitless, and that a genuine sociological engagement with cognitive science will determine the future of the discipline as a whole.

Cognitive sociology - Between cultural sociology and cognitive science

Traditionally, sociologists have approached cognition in many different (sociological) ways. Wayne Brekhus (2015) identifies three traditional sociological approaches to thinking about the mind: the Durkheimian, Goffmanian, and Bourdieusan. Brekhus also identifies five contemporary approaches to cognitive sociology: the discourse or collective representations approach, symbolic interactionism, Zerubavel's (1997) social mindscapes, Swidler's (1986, 2001) cultural toolkits, and, finally, the intersections with cognitive neuroscience and psychology -approach (see Table 1 below). While not exhaustive, Brekhus argues that this list covers the main active schools of thought in cognitive sociology that contribute to contemporary thought and methodological debates.

Table 1: Overview of contemporary sociological approaches to culture-cognition interaction (adapted from Brekhus 2015).

School	Principal authors	Characteristics
Discourse or collective representations	Alexander (2003)	Conceives of culture as supra-individual representations
Symbolic interactionism	Eliasoph & Lichterman (2003)	Focuses on interaction and group-level cognitive processes
Social mindscapes	Zerubavel (1997)	Studies how social processes create cognitive classifications
Cultural toolkits	Swidler (1986, 2001)	Considers culture a fragmented collection of skills, habits, practices, or ideas from which people create strategies of action
Intersections with cognitive neuroscience and psychology	Lizardo (2007), Cerulo (2010b), Vaisey (2009), Turner (2007)	Treats culture as a property of individual minds and draws heavily on cognitive science to understand it

Only the last of these five categories—which also constitutes the most active and rapidly-growing strand of cognitive sociology—draws directly upon cognitive science and psychology. This divides Brekhus' (2015) typology into two camps: one consisting of the first four, which are all sociological ways of thinking about cognition, and the last interdisciplinary approach, which goes outside of the discipline to understand culture-cognition interaction. This divide reflects a recurring theme in the debate of how cognitive sociology should relate to cognitive science: should it provide an outside perspective on cognition, or should it become an integrated part of cognitive science? I will here refer to these two positions as an 'isolationist' and a 'reductionist' approach, terms that highlight the problems with their more extreme forms.

The isolationist/reductionist divide recurs in many descriptions of the field by different authors. In his 2002 contribution to the anthology *Culture in Mind* (Cerulo 2002), DiMaggio argues that there are two distinct types of cognitive sociology, representing two different strategies for thinking about the culture-cognition relationship. On the one hand, there is an 'autochthonous' (i.e., self-sustaining, or isolationist) approach in which sociologists devise their own frameworks and offer a distinctly *sociological account* of cognition (e.g., Cicourel 1973; Zerubavel 1997). On the other hand, there is an approach whereby cognitive sociology is built bottom-up from the cognitive sciences (what I here refer to as a reductionist approach).

The same fundamental distinction recurs in Strydom's (2007) classification of approaches to cognition in social theory. He distinguishes between 'weak' and 'strong cognitivism,' whereby the weak cognitivist approaches employ traditional sociological concepts and perspectives to understand cognition, and strong cognitivist theories take their starting-point from the concepts and perspectives of cognitive science. While the autochthonous, or weak cognitivist, approach undeniably has been productive in all the four schools identified by Brekhus (2015), it is the strong cognitivist approach that is largely favored by the younger (and mostly American) generation of leading researchers today.

Among this new generation of cognitive sociologists, one of the strongest advocates of a strong cognitivist approach and full engagement with cognitive science is Omar Lizardo, who takes a highly critical stance against isolationist sociology and sociological inertia. Lizardo (2014) argues that cognitive science is the future of the behavioral sciences. Lizardo also asserts that in order to remain relevant sociology must be open to cognitive science, yet has been hampered by the sociological practice of engaging in "pseudo-interdisciplinary" dialogue by creating subfields in response to new trends, in the form of '*a sociology of [X]*,' such as in '*a sociology*

of culture and cognition.' Lizardo argues that these sociological subfields are simply "created by sociologists *for* sociological consumption" (985, italics in original), a form of self-reliance or isolationism similar to DiMaggio's (2002) 'autochthonous approach' and Strydom's (2007) 'weak cognitivism'.

Lizardo (2014) further argues that the practice of creating sociological subfields for sociological use does not encourage any actual interdisciplinary exchange because it ignores actual cognitive science: rather than going to the established experts on cognition, it seeks to reconceptualize their research object. There is almost a sociological hubris in not even bothering to engage with decades of research in a field, a hubris which resembles the early 20th-century ambition of sociology to become the queen of social science (Backhouse and Fontaine 2010). A consequence of this routine sense of self-sufficiency is that "today most sociologists have as much knowledge of cognitive science as Émile Durkheim and George H. Mead did ... a nineteenth-century theory of cognition" (Lizardo 2014:987).

What cognitive sociology should do, according to Lizardo (2014), is to strive to become an integrated part of the growing confederation of cognitive social scientists. Lizardo has a strong argument for this: for cognitive sociology to be productive and contribute significantly, it must engage with cognitive science with the humble assumption that cognitive scientists know more about cognition than we do, and that this knowledge might help us to understand culture better. It does not follow, however, that we must abandon established cultural sociology to do so. An unfortunate development associated with the 'strong cognitivist' movement towards cognitive science has been the rejection of not only sociological isolationism, but also of many of the contributions of mainstream cultural sociology (see, for example, Lizardo 2015). Too often, this stronger push for a cognitive turn is not only a turn *towards* cognition, but also a turn *against*, or *away from*, everything associated with traditional cultural sociology and cultural studies (with the possible exception of Bourdieu's habitus theory). This includes the rejection of 'anti-naturalism,' 'interpretativism,' the emphasis on language and symbolic relations, 'culturalist' views of culture as a supra-individual phenomenon with system-like structure, and the idea that culture "constitutes" human experiences (Lizardo 2014, 2015).

The characterizations of cognitive sociology by Lizardo (2014), DiMaggio (2002), and Strydom (2007) all reflect a tension between the two extreme sociological positions to culture-cognition interaction, I previously referred to as *isolationism* and *reductionism* (see Table 2 below). The isolationist approach uses sociology to explain cognition, and tends to treat

individual cognition as a secondary phenomenon determined by larger cultures. It is therefore characterized by having a top-down view of culture-cognition interaction. In contrast, the reductionist views culture-cognition interaction from the bottom up, assuming that individual cognition produces macro-level cultural phenomena, rather than the other way around. Isolationism and reductionism are strong terms, and two extreme ideal-typical positions, but they highlight what the debate is about and the problems associated with either position, as one side largely rejects the contributions of cognitive science, while the other largely rejects the contributions of cultural studies.

Table 2: Two positions of cognitive sociology on culture-cognition interaction and the discipline's relationship with cognitive science.

	Isolationism	Reductionism
Terminology		
<i>DiMaggio (2002)</i>	Autochthonous cognitive sociology	Cognitive sociology builds on cognitive science
<i>Strydom (2007)</i>	Weak cognitivism	Strong cognitivism
<i>Lizardo (2014)</i>	'a sociology of cognition'	Cognitive social science
Characteristics		
<i>Theoretical emphasis</i>	Cultural sociology	Cognitive science
<i>View on culture-cognition interaction</i>	Top-down (cultural primacy)	Bottom-up (cognitive primacy)

Does cognitive sociology really have to take one of these two positions? Is it not possible to embrace all that cognitive science is without rejecting the value of cultural studies? The tension between these positions rests on the assumption that one excludes the other; that talking about neurons and mental schemas as the microfoundation of culture somehow makes discourses or performativity less useful concepts. That is an unwarranted assumption that only makes sense if one assumes that there is a fundamental incompatibility between the two conceptual

frameworks. However, a cognitive sociology is a promising and exciting project precisely because cognitive science can support ideas from cultural sociology, as DiMaggio (1997) once pointed out. Cognitive sociology is promising since embracing the concepts and perspectives of cognitive science does not necessarily exclude, reduce, or otherwise devalue traditional cultural sociology, but provides new synergy if the conceptual frameworks can be aligned (DiMaggio 2002). There is consequently great value in showing that a middle ground is possible through concept translation work. The present dissertation is positioned towards such a middle ground, accepting Lizardo's (2014) argument for a full engagement with cognitive science but rejecting the subsequent assumption that cognitive science is in conflict with traditional cultural sociology (e.g., Lizardo 2015; Turner 2002). The position that emerges here is sympathetic to Danna's (2014:1005) call for a "larger and more inclusive" cognitive cultural sociology:

"The "middle road" exists in demonstrating how existing or developing sociological theories are in line with accepted neurobiological findings and in showing how such work can contribute to answering unanswered questions. This type of positioning leads to fruitful cross-collaborations and interdisciplinary conversations (aka bridge building)."

If we work with the assumption that cultural studies and cultural sociology have provided valuable insights, and that science should ideally be cumulative, there is a great reason to turn towards cognitive science without turning away from cultural sociology.

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