

The Cognitive Origins of Bourdieu's *Habitus**

Omar Lizardo

University of Arizona

olizardo@email.arizona.edu

April 7, 2009

*Direct Correspondence to Omar Lizardo, Department of Sociology, University of Arizona, Social Sciences 400, Tucson, AZ, 85721. Email: olizardo@email.arizona.edu

Abstract

This paper aims to balance the conceptual reception of Bourdieu's sociology in the United States through a conceptual re-examination of the concept of Habitus. I retrace the intellectual lineage of the Habitus idea, showing it to have roots in Claude Levi-Strauss structural anthropology and in the developmental psychology of Jean Piaget, especially the latter's generalization of the idea of operations from mathematics to the study of practical, bodily-mediated cognition. One important payoff of this exercise is that the common misinterpretation of the Habitus as an objectivist and reductionist element in Bourdieu's thought is dispelled. The Habitus is shown to be instead a useful and flexible way to conceptualize agency and the ability to transform social structure. Thus ultimately one of Bourdieu's major contributions to social theory consists of his development of a new radical form of cognitive sociology, along with an innovative variety of multilevel sociological explanation in which the interplay of different structural orders is highlighted.

In keeping with the usual view, the goal of sociology is to uncover the most deeply buried structures of the different social worlds that make up the social universe, as well as the ‘mechanisms’ that tend to ensure their reproduction or transformation. Merging with psychology, though with a kind of psychology undoubtedly quite different from the most widely accepted image of this science, such an exploration of the cognitive structures that agents bring to bear in their practical knowledge of the social worlds thus structured. Indeed there exists a correspondence between social structures and mental structures, between the objective divisions of the social world... and the principles of vision and division that agents apply to them. (Bourdieu, 1996b [1989], p. 1).

1 Introduction

While most English-speaking sociologists acknowledge that the legacy left behind by Pierre Bourdieu represents a towering accomplishment in contemporary social theory and research, the impact and dissemination of his writings in the Anglophone academy continues to be rather uneven and selective (Bourdieu and Wacquant, 1996; Wacquant, 1993). It is fair to say that the now flourishing industry that has grown around Bourdieu’s work in English is the most successful appropriation of “French Theory” by mainstream American and British social science (Swartz, 2003), and not simply the latest case of the “French flu” as Bourdieu feared (Bourdieu and Wacquant, 1997). However, few have noticed how the *way* in which this incorporation has been carried out has been essentially molded to suit the theoretical and epistemological tastes of the Anglophone (and especially American) sociological establishment (Bourdieu and Wacquant, 1996; Wacquant, 1993).

In the case of the U.S., Bourdieu is seen primarily as a theorist of cultural and symbolic stratification, concerned for the most part with a contemporary revision of the Weberian concept of class as lifestyle subcultures that attempt to sustain status through strategies of social closure (Brubaker, 1985; Murphy, 1983). Recent empirical research on the sociology of culture has been predominantly concerned with Bourdieu’s theory of taste and consumption and with his development of the concept of “cultural capital” (Bryson, 1996, 1997; Holt, 1998, 1997; DiMaggio, 1982; DiMaggio and Mohr, 1985; Lamont, 1992, Lamont and Lareau, 1988; Lizardo, 2004), an idea that has also had a deep impact on American and British studies of education and stratification (i.e. Dumais, 2002; Lareau, 2003; Nash, 2003). In a similar way, recent commentary and interpretations of Bourdieu’s work in media studies, have concentrated their attention

on Bourdieu's field theory of cultural production (Benson, 1997), and his mesolevel sociological account of the interaction symbolic production fields and the "field of power", or the state (Coudry, 2003). In England, on the other hand, the focus has been on Bourdieu as a sociologist of education (Nash, 1990), especially in regard to his early studies in the sociology of language and the educational field (Bourdieu, 1967a; Bourdieu and Passeron, 1977), and consequently his work was initially thought of as belonging to the same lineage as the tradition of critical sociology of education popularized by Basil Bernstein. Thus the majority of British commentary on Bourdieu consisted on the adequacy of his views of the educational system as an element of class reproduction (Nash, 2003, 1999; Harker, 1984), including comparisons with Bernstein's formulations (Collins, 2000; Harker and May, 1993). Lately with the rise in interest in culture and consumption in British shores, interest in Bourdieu's work in England has begun to synchronize itself to the earlier incorporation of Bourdieu in the U.S. (Warde, Martens and Olsen, 1999; Warde and Tampubolon, 2002; Warde, Tomlinson and McMeekin, 2000).

What all of these appropriations of Bourdieu's work have in common, is that they concentrate on Bourdieu as primarily a *macrostructural* conflict theorist, who has been able to deploy certain strands of Durkhemian and Weberian theory in order to develop a species of "generalized materialism" (Bourdieu, 1990a; Vanderberghe, 1999) as an alternative to moribund Marxist class analysis (Grusky and Sorensen, 1998). This focus on Bourdieu as essentially a theorist of *class* has brought with it a subsequent hyper-emphasis on the more "mesolevel" aspects of Bourdieu's work, especially his theory of *fields* (Bourdieu, 1985a; Martin, 2003), and *forms of capital* (Calhoun, 1993, LiPuma, 1993), but has resulted in the theoretical neglect and denigration of the final member of this triad: the idea of the *habitus*.

In this paper I attempt to reconstruct the intellectual origins of the idea of *habitus*. Through this conceptual archeology I aim to establish three central set of points: First, the *habitus* has its origins in a creative blend of concepts originating in the proto-structural anthropology of Durkheim and Mauss, the post-Saussurian structural anthropology of Levi-Strauss and in the psychological genetic structuralism of Jean Piaget.¹ As opposed to being Bourdieu's version of practical "agency" counterposed to an overarching structural field (King, 2000), the *habitus is itself a generative dynamic structure* that adapts and accommodates itself to *another* dynamic mesolevel structure composed primarily of other actors, situated practices and durable institutions (fields).

¹That there was a relationship of healthy rivalry between Piaget and Levi-Strauss, and that each new about each other's work is not a well known fact, but it has been documented. See the two interviews by Jacques Grinevald entitled "Piaget on Lévi-Strauss: An interview with Jean Piaget" and "Lévi-Strauss' reaction: An interview with Claude Lévi-Strauss" (Grinevald, 1983a, 1983b); see also Gardner (1967).

Second, the *habitus* is an important theoretical object insofar as it saves Bourdieu's theory from becoming a pure *rationalist positional formalism* with disembodied agents embedded in fields and engaging in strategies to accumulate different kinds of capital (such as the theoretical stances proposed by Anglo-Saxon rational actor-oriented network theorists such as Coleman, 1990 and Burt, 1982, 1992; and sometimes attached to Bourdieu himself), and allows Bourdieu to analyze the social agent as a physical, *embodied* actor, subject to developmental, cognitive and emotive constraints and affected by the very real physical and institutional configurations of the field.

Third, a detour into the intellectual origins of the *habitus* allows us to appreciate Bourdieu's development of a new style of sociological analysis, one that I deem to be a creative *cognitive sociology* (Zerubavel, 1997) that takes seriously the historical development of schemata of perception, classification and action that are ultimately responsible for both macrostructural social reproduction and change. Here I delve in some detail on the little recognized influence of Jean Piaget on Bourdieu's thinking. I argue that a lot of the conceptual and definitional apparatus of the *habitus* can be traced back to Piaget's unique blend of structuralism and developmental cognitive psychology, especially his generalization of the idea of *operations* from the mathematics of group theory and formal logic to the understanding cognition and practical bodily action (Piaget, 1970a).² While Piaget has been a rather neglected figure in contemporary social thought (Kitchener, 1991), drawing the connection between him and Bourdieu, allows us to appreciate the true multidimensionality in Bourdieu's thinking and simultaneously begin to recognize Piaget's heretofore ignored contributions to social theory.

Now I move to the task at hand: first I discuss Bourdieu's initial definition of the concept of *habitus* and show how the incipient cognitive sociology derived from a reconstruction of Levi-Straussian structuralism and a concerted engagement with Piaget's genetic version of structuralism can be observed at that stage. I discuss how the concept of bodily operations and bodily schemas are one of the primary foundations of the *habitus*, and connect those ideas with Bourdieu's theory of social reproduction. I then go on to review the Piagetian conception of practical action and knowledge acquisition, and show how his conceptual apparatus constitute the primary building blocks of the *habitus*. I then further develop the argument that tries to establish the usefulness of construing Bourdieu's work as a structural cognitive sociology. Throughout, I demonstrate Bourdieu's usage of this cognitive approach to sociological analysis by drawing examples from his work on aesthetic perception and appreciation and his anthropology of Kabyle society.

²I claim no originality on this point. That the conceptual structure of the *habitus* owes a lot to Piaget's cognitive psychology has already been noticed, at least in France (see Schurmans and Bronckart, 1999).

2 Unpacking the Habitus: The Origins of Bourdieu's Cognitive Sociology

2.1 Defining The Habitus

Bourdieu's basic concern, as far back as his classic essay *Intellectual Field and Creative Project* (Bourdieu, 1968; [French Original, 1966]) has been not only with the synchronic, cross-sectional explanation of particular variations in social morphology (the structure of fields), but also with the diachronic emphasis on the process of reproduction of class structures and fields of intellectual and/or economic striving (Bourdieu and Wacquant, 1992). The concept that Bourdieu proposed in order to connect his depiction of systemic structuration and his accounts of individual action is of course, that of *habitus* (King, 2000). While Anglophone commentators feel comfortable either accepting or debating most aspects of Bourdieu's Sociology, their cozy disposition quickly terminates when confronted with the idea of *habitus* (c.f. Alexander, 1995). From its initial formulation (and early definition can be found in Bourdieu, 1968), the *habitus* has always seemed like a mysterious entity able to do lots of conceptual and theoretical work. In the words of Paul DiMaggio (1979), the *habitus* appears to be a "kind of theoretical *deus ex machina*". Lest we forget the daunting complexity of the concept with which we are faced, here is one of Bourdieu's (1968: xx) earliest definitions of *habitus* once again:

A system of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a matrix of *perceptions, appreciations, and actions* and makes possible the achievement of infinitely diversified tasks, thanks to analogical transfers of schemes permitting the solution of similarly shaped problems.³

Later on, in *Outline of a Theory of Practice* (1977: p. 72), Bourdieu offers an account of both the origins and of, and a revised rendering of *habitus*:

³As noted by Dianteill (2003: 529-530), Bourdieu (1985b) acknowledges his appropriation of the *habitus* idea from the work of art historian Erwin Panofsky, who himself was influenced by the proto-cognitive idea of historical "symbolic forms" formulated by Cassirer. In fact Bourdieu gives his earliest definition (quoted in Dianteill, 2003) of *habitus* in the "postface" (Bourdieu, 1967b) to his translation of Panofsky's *Gothic Architecture and Scholasticism*. "A system of schema [that] constantly orient choices, which, though not deliberate, are nonetheless systematic; which, without being arranged and organized expressly according to an ultimate end, are nonetheless imbued with a sort of *finality* that reveals itself only *post festum*." As Dianteill remarks (530), "He defines the "modus operandi" (*habitus*) as the very object of sociology itself and it is as such that he intends to undertake its study. It is therefore inside the history of medieval art and philosophy impregnated with Catholicism that the French sociologist finds the model for one of his principal concepts." As we will see, while the *notion* of the *habitus* may have older roots, its substantive content, is in fact more modern.

The structures constitutive of a particular type of environment . . . produce *habitus*, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations.... [T]he practices produced by the habitus [are] the strategy-generating principle enabling agents to cope with unforeseen and ever-changing situations.

A more recent definition of *habitus* and presumably one of Bourdieu's last and most definitive statements on the subject can be found in *The Logic of Practice* (1990, p. 53):

Systems of durable, transposable dispositions, *structured structures* predisposed to function as *structuring structures*, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the *operations* necessary in order to attain them. Objectively 'regulated' and 'regular' without being in any way the product of obedience to rules, they can be collectively orchestrated without being the product of the organizing action of a conductor.

While these particular definitions stand as a good example of the obscurantism that 22 years ago DiMaggio thought might have prevented the acceptance of Bourdieu in Anglophone sociological circles, we can surely say that DiMaggio's concerns were correct in the sense that this conceptual density definitely prevented a full acceptance and more complete engagement Bourdieu's conceptual system. Thus, while the reaction of many American sociologists when faced with this perplexing conceptualization of *habitus* is to dismiss it as a fuzzy idea or to treat it as under-specified and abstract, others worry that it harks back to the Parsonian "oversocialized" (Wrong, 1961) actor, and regard it as a foreign object in Bourdieu's overall theoretical scheme, deeply at odds with his otherwise purposive and agentic conceptualization of the social agent (Alexander, 1995; King, 2000; Lizardo, 2004). Nevertheless, few of Bourdieu's interpreters, whether it is appropriators or detractors, try to truly engage the concept of *habitus*, in what could be a potentially rewarding effort to disentangle its correct meaning and application with the expectation that it might illuminate current puzzles and problems in social theory and research.

As a corrective to this situation, I will attempt to get at the ideational origins of the *habitus* concept, and then will proceed with an analysis of its basic theoretical claims and implications. I distinguish between two major uses that Bourdieu made of the concept of *habitus* in his work: the *habitus* as a *perceptual and classifying* structure, and the

habitus as a generative structure of *practical action*. I begin by briefly discussing the intellectual origins of the first classificatory notion of *habitus*, which continues to be the most widespread interpretation of the idea, but devote the bulk of my discussion to the latter facet, because it has been relatively neglected and when addressed, subject to persistent misinterpretations.

This first (classificatory) aspect of the *habitus* can be straightforwardly traced to Bourdieu's intellectual debt to the long line of anthropological and sociological thinking stretching from Durkheim and Mauss to Levi-Strauss (Johnson, 1997).⁴ The second (practical not classificatory) side of the *habitus* is admittedly more difficult to connect to traditional social theory lineages. This had led most interpreters to point to Bourdieu's notion of practical action as developing out of Merleau-Ponty's reflections on embodied consciousness, which constituted the latter's own attempt to move beyond the disembodied solipsism of Husserl's phenomenology. I contend, in contrast, that Bourdieu's formulation of embodied practical action is not exclusively indebted to Merleau-Ponty or to the phenomenological tradition. In fact it can be shown that Bourdieu remained primarily indifferent and somewhat dismissive of phenomenology throughout his the course of his intellectual development (Throop and Murphy, 2002). This is evident in the critique of phenomenology offered in the introduction to *The Logic Of Practice*, where he chides the phenomenological account of experience for failing to go beyond a "...description of what specifically characterizes 'lived' experience of the social world, that is apprehension of the world as self evident, as 'taken for granted'" (Bourdieu, 1990a: p. 25). What is missing in the phenomenological formulation? Precisely a consideration of the "conditions of possibility" (a nod to neo-Kantianism), "namely, the coincidence of the *objective structures and internalized structures*, [notice the reference to *two types* of structures] which *produce* the illusion of immediate understanding" (emphasis added). Further, the exclusive connection of Bourdieu's theory of practice with Merleau-Ponty's embodied phenomenology has produced the mistaken notion that there exists a tension between Bourdieu's formulations of the *habitus* as an objective embodied structure and Bourdieu's theory of practical action.

According to this interpretation, while Bourdieu's "practical theory" remains true to an agentic, purposive notion of action, his notion of *habitus* makes him fall into a determinist trap, where individuals are construed as the "puppets" of structure (King, 2000). However, this claim can only be sustained when the *habitus* is seen simply as a passive perceptual and classificatory faculty or when the embodied *habitus* is simply seen as the docile clay where society leaves its stamp (as in certain simplifications of

⁴This strand of thinking would become influential in the Anglophone academic field by way of the work of Mary Douglas (1966), Anthony Giddens (1984 and David Bloor (1976).

Foucault's thinking), and not as an *active* generative matrix of action. I will put forth the counterclaim that Bourdieu's idea of practical action cannot be understood without rethinking the way that Bourdieu conceived of the notion of an *embodied schema* and the way that he deployed the concept of *operations*. I show how both concepts are derived from the genetic structuralism of Jean Piaget. Consequently, Bourdieu's characterization of the *habitus* is better understood as rooted in a (post-Kantian) *neo-structuralism* rather than on the neo-pragmatist grounds of the late Wittgenstein.

For Bourdieu, a proper account of practice was not possible without paying attention to the very way in which practice was produced through structure and how by way of the *habitus* agents could use the products of (their own or others') practical action in their recursive attempt to reproduce larger structures (however, as I will argue later, this is not to be interpreted as a "structuration" formulation). Therefore, Bourdieu's thinking is not marked with an inherent tension between "acceptable" practice-theoretical formulations of action versus an "unacceptable" view of the objectivism of structure. In fact once the *habitus* is understood as an objective structure in itself (or as Bourdieu, referred to it, as the "objectivity of the subjective" [1990: p. 135]), we discover that there is no such tension in Bourdieu's thinking. While we can reject objectivism from some axiomatically hostile *metatheoretical* stance (neo-pragmatism, phenomenology, etc.), it is important to understand that within the parameters of his neo-structuralist reconstruction of classic structuralism, Bourdieu did not fall into an incoherence trap, but that his attempt to produce an *objective* account of both practice and structure, *without* abandoning the basic framework of structuralist theory, but by modifying structuralism according to a *generative* and *genetic* metatheoretical stance, constituted the essence of his work (for a development of this line of argument and a reconsideration of Bourdieu as a generative structuralist and of the *habitus* as a cognitive structure capable of producing and sustaining institutional action, see Fararo and Butts, 1999).

Seen in this vein, Bourdieu's rejection of Levi-Straussian structuralism (Bourdieu, 1990a) and his career-long emphasis on both history and reflexivity (Bourdieu, 2000, 1990a; Bourdieu, and Wacquant, 1992) do not represent a "break" with structuralism and a turn to neo-pragmatist practice theory (Ortner, 1984), or to a neo-Husserlian "embodied" approach to phenomenology. Rather, Bourdieu remained a structuralist throughout, but his notion of structuralism was modified through the introduction of concerns regarding the genesis and the historical development of structure, as we will see below. In his mesolevel theory of structural change, Bourdieu of course made use of the field-theoretic metaphors derived from the social psychologist Kurt Lewin and the relational epistemology of Ernst Cassirer (Martin, 2003, Mohr, 2004, Vanderbergh, 1999), but at the level of individual action and cognition it was another psychologist

(Piaget) who provided him with the tools of how to think of a conception of structure at a cognitive-practical level, that could serve as a matrix to generate action, but which did not involve the postulation of an ineffable consciousness from which “spontaneous” action originates (as in Mead, 1934).⁵

Because of the usual conflation of the term “structure” with macro-level organization, the *habitus* is seldom viewed as a structure but is usually seen as a stand-in for the individual or subjective consciousness, which is then faced with a macrolevel structure composed of other individuals, institutions and organizations (King, 2000). However, if we recuperate the Piagetian notion of a *psychological (cognitive) structure* (Piaget, 1970a, 1970b) then we can appreciate the sense in which the *habitus* is a “structured structure” and how the intersection of field and internalized dispositions in *habitus* is in fact the meeting point of *two ontologically distinct but mutually constitutive structural orders* (objective and internalized) and not the point at which “agency” meets structure.⁶ Bourdieu was emphatic on this point. For him, “. . . the most obscure principle of action. . . lies neither in structures nor in consciousness, but rather in the relation of immediate proximity between *objective structures and embodied structures-in habitus*” (Bourdieu, 1996b, p. 38, emphasis added).

However, this still leaves open the question: If not from phenomenology, from what source can we trace the substantive content of the notion of the *habitus*?

3 Piaget’s Genetic Epistemology and its Relation to the Habitus

We can appreciate the influence from cognitive psychology on Bourdieu’s formulation of the practical side of the *habitus* as a “generative matrix” of dispositions toward action that “makes possible the achievement of infinitely diversified tasks” and through the “*analogical transfer*” of schemes that provides the solution to “*similarly shaped problems*” and which also shows the “*mastery of the operations*” required to achieve certain ends. All of this conceptual apparatus, especially the notion of analogical and homological transfer of schemes, the idea of an embodied scheme and the notion of bodily operations upon the world, was developed by Piaget in the context of the study of infant cognition during the 1920s and 1930s, and continued to be fined tuned, modified and developed

⁵In fact I will argue that Bourdieu’s notion of *habitus* consists of a sociologized version of Piaget’s views of practical cognition.

⁶Thus characterizing Bourdieu as “a thoroughgoing phenomenologist” (i.e. Robbins, 1993) is untenable.

until his death in 1980.⁷ The idea of analogical transfers, embodied schemas and bodily operations have specific meanings within Piaget’s system that help illuminate some of the obscurity surrounding the *habitus* and which allows us to appreciate the subtlety of the concept and its flexibility of application to different areas of study (from the sociology of culture to the sociology of education to political sociology). Further, focusing on the Piagetian influence serves to clarify what Bourdieu meant by the “logic” of practice, leading to the conclusion that Bourdieu thought of the term “logic” in this context in very *literal* terms, as opposed to using the word simply as a loose metaphor.⁸ Unfortunately most commentary on the idea of the *habitus* has concentrated on its classificatory aspect (probably because it is the easiest to trace back to the common sociological and anthropological source represented by Mauss and Durkheim (i.e. the societal origins of the Kantian categories of cognition), and the subsequent “inversion” of this line of thinking in Levi-Strauss’ cognitive foundationalism (Maryanski and Turner, 1991), which held that the structures of the universally shared cognitive unconscious were responsible for the (macro)structure of society. The idea of the *habitus* as “generative” for its part has been primarily discussed in the context of an indirect influence of structural linguistics, especially in the form of Chomsky idea of a universal grammar, on Bourdieu’s thinking (see for example Bourdieu, 1990b).

3.1 The Intellectual Significance Of Piaget

Piaget was one of the most influential figures in the Francophone scientific field during the better part of the 20th century, and therefore the appearance of Piagetian ideas in Bourdieu’s conception of the *habitus* is not that surprising. His career spanned the genesis, heyday and decline of the structuralist moment (Dosse, 1997), and his writings dealt with a number of disciplines, including physics, philosophy, biology, mathematics, psychology, sociology, anthropology and philosophy (Dosse, 1997: p. 220; Gainotti, 1997; Gruber and Voneche, 1995[1977]; Smith, 1997).⁹ His essay on structuralism (Piaget, 1971) is one

⁷In the following, it is not my intention to consider the whole scope of Piaget’s thought and work (which consists of dozens of books and hundreds of articles), a goal that is obviously beyond the scope of a single paper. I will only discuss certain key Piagetian ideas as they relate to Bourdieu’s own thinking. For a more complete overview of the Piagetian *oeuvre*, see Gainotti (1997), Piaget (1977) and Smith (1997).

⁸In this respect it is illuminating to consider Piaget’s own account of his “central” motivating idea, as early as 1918 (!) as being “. . . that action itself admits of logic. . . and that, therefore, logic stems from a sort of spontaneous organization of acts” (Piaget, 1977; p. 120).

⁹Piaget is known to have influenced other social and philosophical thinkers including Jurgen Habermas (Kitchener, 1991, p. 434), Thomas Kuhn, from whom the latter drew his notion of discontinuous stages of thought in the history of science (Levine, 2000), and Lucien Goldmann’s “genetic structuralism” (Mayrl, 1978; Zimmerman, 1979). However, it is likely that the relationship between Goldmann and Piaget was probably one of mutual influence as both were at the forefront (in the 1950s) of advocating a new type of historical structuralism that went beyond the static appropriations of Saussure’s classic

of the most complete and important systematizations of that line of thought (Kitchener, 1991: p. 421-422), where its origins and influence are traced to a variety of scientific fields including the mathematical, physical, biological and social sciences; as structuralism reached its highest point of popularity in France, Piaget, right in the middle of this intellectual turmoil, and was in fact one of its primary exponents (Dosse, 1997), and constant critic and fine-tuner (Piaget, 1970b). He was also one of the few scholars that that rejected the static understanding of structuralism inherited from Saussure and adopted almost wholesale by Levi-Strauss and who preferred instead a notion of structuralism that conceptualized structures as fluid but predictable within certain limits, with a determined sequential origin (hence the appellation—favored by Bourdieu—of *genetic*) and subject to specifiable conditions that facilitated change and development (Dosse, 1997; p. 175; Piaget, 1977).¹⁰ In fact Piaget’s notorious dismissal of Chomskyan nativism centered precisely on Chomsky’s inattention to the genesis of linguistic structure and his abandonment of the question of genesis to biology and neurophysiology (Piaget, 1970b).

The contemporary standard popularization of the figure of Piaget as a developmental psychologist who proposed a static stage theory of infant cognitive development is in fact a staggeringly impoverished image (Kitchener, 1991), as exemplified by his attempted syntheses of physics, biology, psychology, and epistemology in *Biology and Knowledge* (1971), and his structural psychology and the philosophy of science in *Psychogenesis and the History of Science* (Piaget and Garcia 1989[1983]). In fact Piaget was a polymath whose writings defied disciplinary lines and who left an indelible mark on both the Anglo-Saxon and continental scientific fields.¹¹ While very few people in the social sciences think of Piaget as a contributor to *social* theory—in contrast to his well established reputation in developmental and cognitive psychological theory—this does not have to do with the fact that Piaget did not issue contributions to social theory, as his aforementioned monograph on structuralism and his recently translated collection of essays, *Sociological Studies* (Piaget, 1995[1965]), attest (Kitchener, 1981, 1991).¹²

formulation (Dosse, 1997: p. 175).

¹⁰In fact Piaget was one of the organizers of a well known conference in Normandy related to the theme of “the confrontation between genesis and structure” (Dosse, 1997: p. 173).

¹¹A little known fact is that Piaget was the youngest of 62 scholars to be selected by Harvard University during the celebration of their tercentenary in 1936 to receive an honorary degree (Hsueh, 2004). Even more surprising is that he was granted this degree as a *sociologist* and not a psychologist. The reason for this is, as Hsueh notes (2004: p. 32), because Piaget’s work was little read at the primarily physiology and philosophy oriented department of sociology at Harvard, but was extremely influential and discussed in education, sociology and other disciplines, including industrial research and human relations. In fact, the now (in)famous Hawthorne Plant studies, were inspired by Piaget’s work and methodology, especially his development of the in-depth clinical interview to analyze the cognitive processes of children (Munari, 1994: 312); and Elton Mayo who organized the studies, was an avid reader of Piaget (Hsueh, 2004).

¹²An exception to this pattern is Fiske (1995; p. 26-30, 124-126) who insightfully connects Piaget’s work on infant reasoning about justice, and morality to Weber’s tripartite typology of authority relations (charismatic, traditional and rational-legal) and Durkheim’s classification of types of social orders

3.2 Piaget's Conception Of Knowledge

I now move to briefly discuss Piaget's conception of knowledge and knowledge acquisition because this is the topic in which his emphasis on practice and active involvement in the world is most clearly appreciated. I intersperse my discussion with passages showing certain commonalities between the conceptions of Bourdieu and Piaget in regard to the *habitus*.

According to Piaget (1970a), knowledge primarily consists of cognitive structures that help transform and are in their turn transformed by the environment. For Piaget knowledge is always *social*, *practical*, and grounded in *action* (Gruber and Voneche, 1995, p. 869-870), and never individualistic or purely cognitive in an exclusively representational-symbolic sense.¹³ In this respect Piaget is closer to the connotation of that the term "cognitive" contemporarily possesses in the field of cognitive science and artificial intelligence (Bainbridge, Brent, Carley, Heise, Macy Markovsky and Skovretz, 1994), and incidentally the sense in which Bourdieu uses the term cognitive is closer to this pole. While in the social sciences, cognition is usually counterposed to practical action, in the cognitive sciences the process of cognition involves much more than information processing and representation as this is simply the second stage of a three step process. The first step consists of gathering raw information from the environment in the form of preprocessed perceptual stimuli; the second step involves transforming perceptual stimuli into more abstract representations of the environment, usually referred to as schemata or schemas (most treatment of "cognition" in sociology such as Howard, 1994, and DiMaggio, 1997 focus on this aspect). Schemas are much more useful for the organism than purely sensory stimuli due to the fact that the latter are fleeting and can only survive in a sensory memory system for a relatively short amount of time. Schemata on the other hand, can be temporarily held in a more reliable working memory system, were they can be ultimately transferred to a long term memory store. Schemata are also convenient in that they are more malleable and flexible (and potentially subject to internal transformations) than purely sensory stimuli. Finally the organism responds with an action sequence in order to either transform or respond to the environmental representations constructed from the sensory stimulation. The entire perception-processing-action-generation sequence is

(mechanical solidarity vs. organic solidarity) and forms of punishment (retributive vs. restitutive). See also Gainotti (1997), Kitchener (1981, 1991) and Maier (1996) on Piaget's contributions to sociological thinking.

¹³That the late Piaget's view of mental functioning became more and more idealist and solipsistic, with cognitive structures floating around in disconnected, asocial ether, is a common misconception. Even in a late work like *Biology and Knowledge* (1971a), Piaget asserts that: "... society is the supreme unit, and the individual can only achieve his inventions and intellectual constructions insofar as he is the sear of collective interactions that are naturally dependent, in level and value, on society as a whole" (Gruber and Voneche, 1995, p. 858).

thus covered under the term cognitive, not only the symbol-manipulation stage.

It is in this sense that cognitive *structures* are of primary importance in Piaget's developmental theory. However it is important to keep in mind that Piaget's primary emphasis was not on cognitive structures as static symbolic representations, but on *bodily schemas* (a term favored by Bourdieu, but first popularized by Piaget) and the *operations* generated by way of these, through which the child is then able to transform those representational structures into recognizable plans of action in the world, and to acquire new cognitive structures from the feedback obtained from her practical doings in the surrounding environment. In this sense, Piaget considered knowledge to be of a primarily *operative* nature, and of cognitive development as dictated by the interplay of different structural systems some bodily-motor, and some symbolic-representational. This emphasis on the dialectic of active operation and cognitive representation, as opposed to a pure emphasis on the passive recording of reality by the subject's consciousness connects Piaget with the contemporaneous current of post-Husserlian French phenomenology primarily represented by Merleau-Ponty (2002); however, as we will see below, Bourdieu's idea of the operation of the *habitus* was much more directly influenced by Piagetian conceptions.¹⁴ As Piaget puts it:

To know is to transform reality [through action] in order to understand how a certain state is brought about. By virtue of this point of view, I find myself opposed to the view of knowledge as a copy, a passive copy, of reality. In point of fact, this notion is based on a vicious circle: in order to make a copy we have to know the model we are copying, but according to this theory of knowledge the only way we know the model is by copying it, until we are caught in a circle, unable to know whether our copy of the model is like the model or not.. To my way of thinking, knowing an object does not mean copying it—it means acting upon it. *It means constructing systems of transformations that can be carried out on or with this object. Knowing reality means constructing systems of transformations that correspond, more or less adequately, with reality. They are more or less isomorphic to transformations of reality. The transformational structures of which knowledge consists are not copies of the transformations in reality; they are simply possible isomorphic models among which experience can enable us to choose*" (Piaget, 1970, p. 15, emphasis

¹⁴The purpose of this review of Piaget's thinking is not to show that every "psychological" sounding term used by Bourdieu must have been a direct or indirect borrowing from Piaget. For instance the idea that the origins of "figurative" (i.e. symbolic) schemas have their origins on "postural schemes" (a term preferred by Bourdieu to refer to a critical component of the *habitus*) developed in during childhood development has its origins in the work of the psychologist Henry Wallon. Piaget (1962) claimed that his notion of sensorimotor schemas was identical to Wallon's.

added).

The primary purpose of knowledge accumulation and development is consequently change and transformation as well as the *conservation* of previously acquired cognitive structures, with cognitive and bodily structures alternating between states of equilibrium and shorter lived episodes of disequilibrium and subsequent re-equilibration, as the child attempts to cope with an ever changing experiential flux. This formulation of a flexible structuralism, is in stark contrast to Levi-Straussian static cognitivism which in Bourdieu's words simply asserted "...the universality and eternity of the logical categories that govern the 'unconscious activity of the mind'" but ignores "...the dialectic of social structures and *structured, structuring dispositions through which schemas of thought are formed and transformed*" (Bourdieu, 1990a: p. 41, emphasis added). This latter process was precisely the core contribution of Piaget's constructivist structuralism (Piaget, 1977). For Piaget this capacity to structure while at the same time being able to be structured (a key component of Bourdieu's definition of the *habitus*) was in fact a general capacity of all structural arrangements. For instance in *Structuralism* Piaget (1970b: p. 10) notes that "If the character of structured wholes depends on their laws of composition, these laws must of their very nature be *structuring*: it is the constant duality, or bipolarity, of always being simultaneously *structuring* and *structured* that accounts for the success of the notion of law or rule employed by structuralists." In fact it can be argued that Bourdieu's dialectical model of the *habitus* as both a structured structure and a structuring structure is directly related to Piaget's conceptualization of the process of knowledge acquisition as a dialectic produced both by structured action upon reality that transforms the world, and by the outer environment's subsequent structuring effect on the categorical schemata that we use to make sense of the world (Piaget, 1977). For Piaget (1971; p. 27), "The essential functions of the mind consist in understanding and in inventing, in other words, in building up structures by structuring reality." Further, we can appreciate with more clarity how Bourdieu's notion of the *habitus* as "mirroring" or as somehow "containing" the field is directly associated with Piaget's more abstract conception of the act of knowing as entailing the construction of systems of (bodily and mental) transformations that are "isomorphic" (but never fully equivalent with) with reality.

It is important to be clear as to what isomorphism means from this perspective. As Hofstadter (1990[1979]: p. 49) notes, in the mathematical context (from which Piaget drew in his interpretation of this concept), "The word 'isomorphism' applies when two complex structures can be mapped onto each other, in such a way that to each part of one structure there is a corresponding part in the other structure, where 'corresponding' means that the two parts play similar roles in their respective structures."

As noted above, Bourdieu's (1988, 1996a, 1996b) primary explanatory schema consists in drawing out the interplay an dialectic of accommodation and discordance between two distinct structural orders (subjective and objective) and when he speaks of how embodied structures are "isomorphic" or "homologous" to objective structures (Bourdieu, 1984; p. 466-468; 1996b, p. 1-6), he is drawing on this mathematical notion of correspondence (Durkheim of course, if famous for proposing the original but cruder version of this mapping between mind and society). It is in this sense that Bourdieu thinks of the "...logic of scheme transfer which makes each technique of the body a kind of *pars totalis* [whole in the parts], predisposed to function in accordance with the fallacy *pars pro toto* [parts before the whole] and hence to *recall the whole system to which it belongs*, gives a general scope to the apparently most circumscribed and circumstantial observances" (Bourdieu, 1990: p. 69, emphasis added). Thus the usage of the term isomorphic here does not refer to producing a "carbon copy" of the external world (field) that is marked in the individual mind (as in the traditional social learning model), but in the development of a set of flexible and transposable *procedures*, bodily and mental transformations, that are simultaneously a model *for* as well as a model *of* reality, and which imply and *correspond* to that reality (Piaget, 1970a). It is also in this sense of the mutual correspondence (not Newtonian determination) between objective and internalized structures that the concept of structural homology often deployed by Bourdieu should be interpreted. For instance in the context of discussing the association between the patterns of classification used by judges to judge the intellectual merits of essays written by students in a prestigious competition, and the disciplines of study and class backgrounds of those students, Bourdieu (1996b, p. 29) notes that:

The harmony between the properties objectively linked to the different positions in the objective structures and the social and academic properties of the corresponding students and teachers is grounded in the seemingly inextricably dialectic that obtains between the mental structures and the objective structures of the institution. While we should bear in mind, in opposition to a certain mechanistic view of action, that social agents construct social reality, both individually and collectively, we must take care not to forget...that the have not constructed the categories that they implement in this construction. *The subjective structures of the unconscious that carries out the acts of construction, of which academic evaluations are but one example among many, are the product of a long, slow unconscious process of the incorporation of objective structures.*

In this respect it is important to note that in contrast to Piaget, for Bourdieu, the external reality confronted by the agent, is not the abstract "environment" sometimes postulated by Piaget, but is composed of more specific, differentially and *socially distributed* environments (composed of interconnected and differentially valued material,

cultural and symbolic resources). These socially differentiated environments are organized both *synchronously* as a hierarchical topology of possibilities, homologies and oppositions (which Bourdieu usually represented using the statistical tool of “the analysis of correspondences”) and *diachronically* as an ordered trajectory of encounters with similarly structured realities (i.e. the progression from middle school to high school and university in modern societies), themselves produced and shaped by the organized action of a myriad of other agents generating action according to their own intersection with this structured reality (Bourdieu, 1988, p. 149). Bourdieu’s (1984) entire notion of class based taste as producing differentially valued bodily and mental capacities to consume certain objects is dependent on this notion of the external environment as being encoded in bodily practices.

3.3 Assimilation And Accommodation

Piaget distinguished two kinds of cognitive structures: *action schemes*, which are practical (bodily) way of accomplishing some task or bring a state of affairs into effect in the external world, and *logical structures*, which are various ways of organizing and ordering categorical information about objects in the world, such as taxonomies and hierarchical classification systems. This is as close as he came to codifying the symbolic/practical distinction in his system. Bourdieu would later on collapse both of these functions (in addition to perception), classificatory and action-generative, into his conceptualization of the *habitus*. Recall in this context that one of Bourdieu’s early conceptualizations (1968: p. xx) spoke of the *habitus* as a matrix of “perceptions, appreciations [classification] and action”. For Piaget the dialectical process of interaction between the individual and the environment is primarily governed by the preexisting stocks of knowledge that the person brings into the interaction; this set of accumulated competences, both categorical and procedural, shape the perception of and are in their turn shaped by new environmental stimuli. On the one hand in it is possible to use previously developed representations of the environment and action schemata developed to deal with past experiences in order to deal with newly encountered situations.

Piaget referred to the process through which action schemas are applied to new situations as *assimilation*. Through assimilation, the child applies preexisting stocks of knowledge and practical schemas that were developed in a previous context to new environmental stimuli and segments of reality. Thus, while sucking initially arises as an inborn practical schema designed for the procurement of sustenance, the child is able to “generalize” this schema by sucking other things in her surroundings, such as her own hand or other objects. This is the (bodily) origin, for Piaget of “generalization” or the

subsumption of a set of different instantiations of reality (i.e. material objects), under a more inclusive category. As we will see below, Bourdieu thought of the “generative schemes of the *habitus*” in a similar way as capable of being applied, “. . . by simple transfer, to the most dissimilar areas of practice” (Bourdieu, 1984; p.175).

It is also possible that preexisting schemas produced as an effort at representing past environmental states, are *modified* when faced with sufficiently new and extraneous environmental configurations such that they require a revision of previously formed schemata stored in long-term memory. In this case it is appropriate to say that the extant structures have been *accommodated* to fit the environment. For Piaget, the child’s cognitive development is driven by a constant process of assimilation of new information and accommodation of preexisting structures to fit recurring but not necessarily identical situations in the material and social world. In the long run, Piaget reasoned that cognitive development tends toward an *equilibrium* or balance between accommodation and assimilation processes.

Piaget’s genetic epistemology tried to bridge the gulf between the traditional antipodes of rationalist nativism and empiricist environmentalism by focusing on the dynamic nature of cognitive structures and their recursive relationship to the external world. However Piaget’s chief contribution and primary influence on Bourdieu’s conception of *habitus* is his emphasis on the tenet that knowledge and all “higher” levels form of symbolic thought (taxonomies, classifications, logical operations) arises from the more concrete and physical level of bodily action and practice, and that it consists primarily of *internalized structures*, both kinetic and representational, that are isomorphic (i.e. stand in a relation of correspondence with) with reality. While Piaget rendered his theory in a rather general and terse language, Bourdieu *sociologizes* the concept of internalized operations produced by reality and sees the *habitus* as the site where these “systems of durable, transposable dispositions” which are both the product and the producers of subsequent objective structures are located. He does this by giving Piaget’s skeleton of abstract reality the flesh of a sociological account of the differential distribution of socially structured *realities* with which different class fractions are faced. In this manner he provides his conflict theory with cognitive microfoundations that sidestep the problematic of order from shared representations or from domination through ideological manipulation inherited from Durkheim and Marx respectively (Bourdieu, 1994: 14), both of which are dependent on the fallacy of interpreting cognitive structures in a purely representational manner (i.e. contents in the head or abstract symbolic systems).

3.4 The Concept Of Operations: Thinking With The Body

I submit that the idea of *habitus* as a lasting system of transposable dispositions that provides a generative matrix of classificatory and practical competences and automatisms cannot be understood apart from the generalized idea of cognitive *operations*. Piaget formulated this sense of the term operation in the course of his studies of infant development and cognition, which he borrowed from the formal algebra of group theory and mathematical studies of general classes of mathematical structures (group, order, and topological) as advanced by the “Bourbaki” group of early and mid 20th century French mathematicians who published under this pseudonym (Piaget, 1970b, 1977).¹⁵

For Piaget, action in the world could be understood as similar to mental action performed on cognitive objects under some system of rules (i.e. action performed on the natural numbers under the rules of simple arithmetic). As noted above, Piaget’s elementary contribution consisted on showing how “higher order” mental operations have their foundation on “lower order” motor operations. Thus the mental manipulation of mathematical objects in effect has as its underlying template the physical manipulation of real world objects in the early stages of psycho-motor development. It is in this sense that Piaget (1970b) thought of both mathematical operations (i.e. addition, subtraction), and Boolean and logical operations (i.e. negation, union, intersection) as having as their early substrate the sensorimotor manipulations enacted upon real-world objects (such as for instance, moving an object away from the body is the “negation” of the operation composed by moving it towards the body). That Bourdieu was deeply familiar with this mode of conceptualizing action in the world is evident from an attentive reading of *The Logic of Practice*. For instance, Bourdieu in arguing that (implicit) belief in legitimized social orders (*doxa*) has both a cognitive and a bodily foundation puts it this way:

Practical belief is not a ‘state of mind’, still less a kind of arbitrary adherence to a set of instituted dogmas and doctrines (‘beliefs’), but rather a state of the body. Doxa is the relationship of immediate adherence that is established in practice between a habitus and the field to which it is attuned, the pre-verbal taken for granted of the world that flows from practical sense. Enacted belief, instilled by the childhood learning that treats the body as a living memory pad, an automaton that ‘leads the mind unconsciously along with it’, and as repository for the most precious values, is the form par excellence of the ‘blind or symbolic thought’... which Leibniz refers to, thinking initially of algebra, and which is the product of quasi-bodily dispositions, operational schemes,

¹⁵The Bourbaki group included, among others, Mandelbrot, an early developer of fractal geometry (Gleick, 1987), and Andre Weil who wrote the mathematical appendix to Levi-Strauss’ *Elementary Structures of Kinship* (Barbosa de Almeida, 1990).

analogous to the rhythm of a line of verse whose words have been forgotten, or the thread of a discourse that is being improvised, transposable procedures, tricks, rules of thumb which generate through transference countless practical metaphors that are probably as devoid of perception and feeling as the algebraist's dull thoughts. Practical sense, social necessity turned into nature, converted into motor schemes and body automatisms, is what causes practices, in and through what makes them obscure to the eyes of their producer, to be sensible, that is informed by a common sense. It is because agents never know completely what they are doing that what they do has more sense than they know (Bourdieu, 1990a: p. 68-69, italics added).

Here we can discern two principal themes in Bourdieu's thinking about the *habitus* and the origins of practical action: first, belief, both in the sense of subjective harmony and objective coordination between the internal and the external is a bodily phenomenon and second, practical action arises out of the operation of motor and operational schemes stored in the socially produced *cognitive* [not Freud's psychodynamic] *unconscious*, the true repository of collective representations in the Durkheimian sense.¹⁶ Thus, the key idea borrowed by Bourdieu from Piaget consists of the notion that the body itself can be both the site and the primary source of operations that come to acquire increasing generality and flexibility through experience, but which can also become "locked in" (conserved) through sustained repetition in socially produced action contexts.

The child might begin with a simple set of behavioral responses (i.e. grasping, sucking) that after continual attunement by the environment come to be deployed in a wider class of situations, and thus become a generalized bodily schema. For Bourdieu, a constant stream of experiences differentially generated by class position, similarly produce an embodied reflection of those positions in terms of concrete bodily structures. In fact, in *Distinction* Bourdieu mentions Piaget's work precisely in the context of talking about the pre-reflexive, bodily status of art appreciation, opposing the Kantian view of artistic appreciation as purely cognitive and incorporeal act of judgment:

Art is also a 'bodily thing', and music, the most 'pure' and 'spiritual' of all the arts, is perhaps simply the most corporeal. . . It is pitched not so much beyond

¹⁶ A position similar to that put forth by the Levi-Strauss of the *Savage Mind* (1966) and *The Jealous Potter* (1988), where he distinguishes his own rendering of the linguistic unconscious from the Freudian version. However, for Levi-Strauss in contrast to Piaget, the cognitive unconscious is timeless and universal; for Bourdieu (1984, p. 468) in contrast, while "common to all of the agents of society", the "cognitive structures which social agents implement in their practical knowledge of the social world", which "function below the level of consciousness and discourse" are also "*historical* schemes of perception and appreciation which are the product of the *objective division into classes* (age groups, genders, social classes)".

words as below them, in gestures and movements of the body, rhythms – which Piaget... says characterize the functions located, like everything which governs taste, *at the articulation of the organic and the mental* (Bourdieu, 1984; p. 80, italics added).¹⁷

In this respect, one of Bourdieu’s most creative concepts consists of the bodily *habitus* as capable of generating “*practical metaphors*” (Bourdieu, 1984; p. 173), “that is to say, transfers (of which the transfer of motor habits is only one example).” These practical metaphors consist precisely upon bodily operations that are brought to bear by members of different class fractions on the objects they encounter during their everyday life. They serve as metaphors of each other precisely because of the fact “that they are the product of transfers of the same schemes of action from field to another” in the very same way that a rhetorical metaphor is a transfer of meaning from a vehicle to a tenor. Practical metaphors can also be composed of non-human material and ecological orderings, as in Bourdieu’s analysis of the peculiar spatial arrangement of the Kabyle household (1990; p. 93) apparently designed to establish a clear opposition between inside and outside, of a set of quasi-mathematical operations such as a “...semi-rotation, but only on the condition that the language of mathematics is brought back to its basis in practice, so that terms like displacement and rotation are given their practical senses as movements of the body...” This is of course one of the central Piagetian insights (Piaget, 1977), in particular the idea of the origins of mathematical and logical reasoning in bodily schemata (Piaget 1924; Piaget and Szeminska 1941).¹⁸ Bourdieu, utilizes a similar Piagetian framework in his analysis of the role of *habitus* in Kabyle ritual (1990: p. 92) when he compares the logic of ritual procedures and actions to the operations of formal logic. However, in opposition to the standard Levi-Straussian cognitive pan-logicism, which is based on “...treating practical manipulations and bodily movements as logical operations; of speaking of analogies and homologies... when it is simply a matter of practical transfers of *incorporated, quasi-postural schemes*” (emphasis added).

Let us also consider Bourdieu’s (1990a: 89) account of *bodily generalization*. Out of proper theoretical context, the idea of “bodily generalization” appears nonsensical: how can the body “generalize” when generalization is the prototypical “cognitive” operation, and thus purely conceptual and occurring “inside the head”? This is where familiarity with the Piagetian corpus, helps makes sense of certain claims made by Bourdieu,

¹⁷Following this passage, Bourdieu adds a footnote citing the work of Paul Fraisse, a French experimental psychologist known for his work on the psychology of time (Fraisse, 1964), who also co-edited a book with Piaget (Fraisse and Piaget, 1968).

¹⁸“The mathematical operation derives from action, and it therefore follows that the intuitional presentation is not enough. The child itself must act, since the manual operation is necessarily a preparation for the mental one [...]. In all mathematical fields, the qualitative must precede the numerical (Piaget, 1950, p. 79–80)”, quoted in Munari (1994: 314).

especially in the more “conceptual” sections of *The Logic of Practice*. For Bourdieu, the purely symbolic analysis of myth, stories and other linguistic phenomena, especially that which concentrates in purely semantic resemblances, and metaphoric oppositions deployed in ritual practice, or the “...language of overall resemblance and uncertain abstraction” is still “too intellectualist to be able to express a logic that is *performed directly in bodily gymnastics*” (emphasis added). Thus the “practical schemes” by “inducing and identity of reaction in a diversity of situations” and “impressing the same posture on the body in different contexts”, “can produce the equivalent of an act of generalization that cannot be accounted for without recourse to concepts.” This is spite of the fact that this “enacted” and “unrepresented” generality “arises...without ‘thinking the similarity independently of the similar’ as *Piaget puts it, dispenses with all the operations required by the construction of a concept*” (Bourdieu, 1990a, p. 89, emphasis added). Compare this formulation with Piaget’s early (1936) notion of “generalizing assimilation” defined as the incorporation of increasingly varied objects into a particular practical schema.

Thus Bourdieu thinks that it is this capacity to “think with the body” and to “know without concepts” (Bourdieu, 1984, p. 471) that accounts for the sense of *doxa*, or mutual complicity between objective structures and embodied structures, and which accounts for the sense of “belief” and legitimacy of socially produced structural orders. When both the objective and subjective structural orders are in equilibrium, reality and society are seen as unproblematic “givens”; this is the mechanism that “produces belief” (Bourdieu, 1980) in ultimately arbitrary objective structural arrangements. It is this possibility that two ontologically distinct structural orders come to state of temporary equilibrium, which is for Bourdieu the mechanism which produces the reality of society, or the tacit “taken-for-grantedness” of the social world (Berger and Luckmann, 1967); a reality ultimately based on (socially forgotten) initial imposition of arbitrary hierarchies of value (symbolic violence). When these two structural orders come out of phase however, as when the system of *Grandes Ecoles* in France could not produce as many positions as those which were demanded given the expectations produced by the *habitus* of a certain fraction of the student population (Bourdieu, 1988), then sudden calls for transformation and questioning of the existing order can be produced; however these do not stem from the metaphysical well-spring of “agency” but are produced by the same system of embodied structures that would have resulted in unproblematic accommodation had the objective structures remained in line with the subjective structures.

Taking the above into consideration, the contention that Bourdieu’s brand of structuralism is the “opposite” of the Levi-Straussian and Piagetian branch because the former deals with social structures while the latter is more concerned with cognitive structures—as proposed by Lucich, 1991—is simply not accurate. Bourdieu’s social theory can in fact

be interpreted as an attempt to integrate these two forms of structuralism (sociological and [socio]psychological). This is the—correct in my view—argument put forth by Wacquant (1996) when he claims for Bourdieu, in order

... to realize itself fully, a generative sociology of the manifold logics of power cannot limit itself to drawing an objectivist topology of distributions of capital. It must encompass within itself this ‘special psychology’ that Durkheim called for but never delivered. It must, that is, give a full account of the social genesis and implementation of the categories of thought and action through which the participants in the various social worlds under investigation come to perceive and actualize (or not) the potentialities they harbor... such dissection of the practical cognition of individuals is indispensable because social strategies are never determined unilaterally by the objective constraints of the structure any more than they are by the subjective intentions of the agent. Rather, practice is engendered in the mutual solicitation of position and disposition, in the now-harmonious, now-discordant, encounter between social structures and mental structures, history objectified as fields and history embodied in the form of this socially patterned matrix of preferences and propensities that constitute habitus (Wacquant, 1996, p. XVI).¹⁹

3.5 The *Habitus* And Determinism

Bourdieu’s stress on the *habitus*’ context transposability, experience integration and problem solving functions, stemmed from a fruitful engagement with Piaget’s conceptions of cognitive operations and the latter’s post-Kantian stance on the relation between mind and experience (Piaget, 1971a, 1970a). Further, and in contradiction to those who see the *habitus* as an overly deterministic element in Bourdieu’s theory, it is precisely this idea of flexible operations that allows for the *habitus* to not be tied to any particular content (as in some versions of learning theory) instead, the *habitus* is an abstract, non-context specific, *transposable* matrix. Thus, what this entails for those who complain that the *habitus* implies an over-socialized subject is that the Bourdieuan actor, as opposed to the Parsonian variant, is not necessarily burdened with any *content-specific* value commitments or imperatives. She is endowed with a much more flexible and creative cognitive-perceptual and behavioral set of schemes, which nevertheless tend to “constitute the body as an *analogical operator* establishing all sorts of practical equivalences between the different divisions of the social world” (Bourdieu, 1984, p. 475). In

¹⁹See also Bourdieu’s prologue to *The State Nobility*, “Social Structures and Cognitive Structures” (Bourdieu, 1996b, p. 1-6).

Bourdieu's (1984, p. 466) view, it is a mistake to refer to as internalized "values" what are in fact "the most automatic gestures or the apparently most insignificant techniques of the body."

It is at the level of the deployment of structurally similar sets of practical schemes of classification and perception that collective "representations" reside. If the notion of representation is interpreted in its usual "symbolic" sense (implying some sort of substantial content in the individual's mind [Parsons, 1937]) then we are back to the Durkheimian problematic of having to postulate universally shared contents in some sort of collective mind (Swidler, 2000); however if what is shared is instead socially distributed sets of bodily operations, which working on the different contents afforded by the specific social environment produce countless acts of practical correspondences, then this dilemma is averted. Further, the notion of symbolic conflict over the contents of cultural classification systems can be introduced even when acknowledging that the participants in these conflicts bring with them similar practical competences and classifiable judgments and actions, which "maybe the product of the same scheme of perception. . . while still being subject to antagonistic uses" (Bourdieu, 1984, p. 480), by members of different fractions of the dominant classes.

It is important to notice that the notion of a transposable matrix both set limits at the same time that it implies flexibility. Epistemologically, a cognitive-perceptual matrix will always be a filter through which the subject will order the flux of everyday experience, and as such it will be *constraining*. Further, insofar as it will delimit the parameters of practice it will be *restrictive* (just in the same way that adult monolingual speakers of English have difficulty picking up a second language without displaying an accent, or people with less than a high school degree have trouble noticing what is so great about Bach's *Brandenburg Concerto*). Thus as Bourdieu puts it:

The habitus is necessity internalized and converted into a disposition that generates meaningful practices and meaning-giving perceptions; it is a *general, transposable disposition* which carries out a systematic, universal application—beyond the limits of what has been directly learnt—of the necessity inherent in the learning conditions.

I am not claiming that some of Bourdieu's own deployments of the idea of *habitus* are not deterministic and somewhat reductive—they sometimes are (see King, 2000; Mohr, 2004, and Sawyer, 1999 for examples)—but what I am claiming is that there is nothing *inherently* faulty or *intrinsically* deterministic in the *concept* of *habitus* that precludes its usage and application in non-deterministic ways. However, this depends on the notion of determinism that is at stake. If by determinism we mean, any attempt to subject social

action to explanatory schemes, then Bourdieu's notion of *habitus* is guilty as charged. But if we restrict the meaning of determinism to its most classical sense, as an attribute of a theoretical scheme which purports to predict the way that individuals will behave in any given situation (i.e. Skinnerian behaviorism in psychology, or expected utility theory in economics) then the *habitus* is far from deterministic and in fact allows for a wide range of creative and purposive actions. In fact, a lot of Bourdieu's critics focus on those aspects of his work where the *habitus* idea is applied more forcefully as a reproductive force but ignore the instances when it is used in a much more flexible way (i.e. Bourdieu, 1988; 1996a; 1996b). Of course, from a phenomenological or processual perspective no amount of flexibility in the *habitus* concept itself is going to be acceptable, insofar as it remains an inherently objective structure (Ciccourel, 1993; p. 103; Throop and Murphy, 2002). However, as Ciccourel acknowledges, it is precisely Bourdieu's adaptation of "genetic structuralism" (an idea also deployed by Piaget since the beginning of his studies on childhood development [Piaget, 1977]) that allows it to embrace "the social genesis of abstract mental structures of schemes of perception, thought and action which are constitutive of *habitus*."

In sum, we can say that in analogy to Camic's (1986) account of the resistance of American sociologists to the concept of habit due to its association with late 19th century and early 20th century psychological thought, the reticence shown by Anglophone sociologists to engage the cognitive side of Bourdieu's theory while accepting its conflict and macro-structuralist facets, evinces a selective appropriation of Bourdieu, one in line with what have been the traditional concerns of (especially) American sociological research, and its antagonistic relation to anything associated with psychology.²⁰ In this sense the under-emphasis or hasty rejection as "reductionist" of the reproductive side of Bourdieu's social thought can be seen to stem not from some inherent intellectual deficiency in the concept of *habitus* itself, but from a clash of intellectual traditions and theoretical cultures: French structural-cognitivist (i.e. Levi-Strauss, 1962) versus American structural-relational (Maryanski and Turner, 1991).

²⁰One of the primary reasons why the social sciences in France were less resistant to psychological influences consists precisely on the availability of *structuralism* as an overarching vocabulary at one point thought to be able to unify all of the human sciences (Dosse, 1997; Levi-Strauss, 1987[1950]; Piaget, 1970b); thus, in contrast to the American fear of psychological reductionism (best exemplified by Parsons' diatribes against behaviorism [Camic, 1986]), the social sciences in the French intellectual field were able, by way of structuralism, to attempt to integrate the psychological sciences *on their own terms* (Levi-Strauss, 1987[1950]). Thus, both cognitive psychology thanks to Piaget and Psychoanalysis thanks to Jacques Lacan, were able to partake in the intellectual network formed by Anthropology, Linguistics and History during the heyday of structuralism (Dosse, 1999). This intellectual legacy survives to this day: consider a recent edited collection that discussed Bourdieu's work (Lahire, 1999, published in French, which included contributions by *developmental psychologists* (Schurmans and Bronckart, 1999), in addition to anthropologists and sociologists; can an analogous development be imagined in the Anglophone intellectual field?

4 Conclusion

I have attempted to trace the lineage of the notion of *habitus* while focusing on its conceptual debt to Cognitive Psychology, especially the constructivist psychological structuralism of Jean Piaget. This detour sheds light on the somewhat clouded origins of the *habitus*; origins that were left obscure by Bourdieu himself in his written works (save for some scattered references to Aristotle and Chomsky). Viewing the *habitus* as Bourdieu's version of a socially produced cognitive structure, composed of systems of bodily operations that generate practical action in the world, sheds light of some of the most unclear and (for this reason) neglected parts of his social theory. An important implication is that Bourdieu's sociology is through and through a *cognitive sociology*, and in fact none of his major works (i.e. 1984, 1988, 1996b) can be interpreted outside of this cognitive context. In this sense Bourdieu's work was discerning in that he anticipated by more than two decades the current concern to develop a sociological study of culture and society that is more in tune to issues related to cognition (DiMaggio, 1997, 2002; Cerulo, 2002; Zerubavel, 1997). However, Bourdieu understood cognition in a much broader sense than current proponents of cognitive theory in sociology (i.e. DiMaggio, 1997; Zerubavel, 1997) and it is this sense of the cognitive that I have aimed to recuperate here.

Ultimately the central problematic of Bourdieu's social theory was to clarify the process through which objective social structures (macrolevel arrangements of differentially valued material and symbolic resources) are translated in the process of socialization, through the pervasive development of a system of practical correspondences, into *embodied social structures* (Bourdieu, 1984, p. 467) which in their turn produce practices in tune with the social structures that generated them and which serve to reproduce and transform those very same objective structures through time.

Thus, one of the reasons that interpreters have had such a difficult time understanding the *habitus*, is that they conflate the concept of *habitus* with Bourdieu's version of the first-person phenomenological perspective (King, 2000), and do not realize that the *habitus* is itself an *objective* structure albeit one located at a different ontological level and subject to different laws of functioning than the more traditional "structure" represented by the field. This shift in perspective necessitates that we disabuse ourselves of the idea of Bourdieu as a "structuration" theorist in the vein of Giddens (1984). In this respect, while Giddens and other commentators (i.e. Sewell, 1992) have spoken about the *duality of structure*, Bourdieu's is best considered as proposing a duality of *structures*. This also means that we need to think of two temporalities and ontological orders when considering Bourdieu. One temporality is *developmental* and manifested in the specific

materiality of the human body and the life-course history of dispositions stored in the psycho-motor and cognitive-motivational system (*habitus*), while the other is *historical* and manifested as durable objectified institutions and symbolic orders (*field*). Thus, Bourdieu (1994: 14) is able to speak of the "... cognitive structures inscribed in bodies by both collective history (phylogenesis) and individual history (ontogenesis) and, on the other, the objective structures of the world to which these cognitive structure are applied."

It is in this sense that both fields and members of fields have intersecting and overlapping trajectories, and the specific configuration and characteristics of both *habitus* and field at a particular point in time will depend on that exact intersection (Wacquant, 1996). In this respect, there are always to different temporal orders in any sociological explanation: one pertaining to the "structural history" of objective structures (fields) and one pertaining to the biography of certain individuals or populations as they are socialized into specific fields at certain points in their structural development.

Bourdieu's multilevel conception of sociological explanation and his attentiveness to issues of how this style of explanatory analysis can be applied to the interplay between individual bodily and mental structures and macrolevel social structures has so far been under-exploited. Most commentary on Bourdieu's work has concentrated on his alleged economism, reductionism or determinism (i.e. Alexander, 1995; King, 2000; Vanderberghe, 1999), but all rest on a similar misinterpretation of Bourdieu as an agency-structure theorist, focused on the problematic of consciousness as confronted by structure. While Bourdieu never tired of asserting that his goal was to make the very terms of that debate *irrelevant*, he never entirely clarified (at least outside of the theoretical sections of his major works) how his approach to practical activity was grounded in a thoroughly different view of the origins of action as the one inherited from the phenomenological tradition. In a similar manner, Bourdieu himself never made sufficiently clear how the foundations of the *habitus* on a constructivist cognitive psychology put him far away from the unrealistic models of reasoning and decision-making currently dominant in economics (which obviates the charge of economism), which are beginning to be challenged from the cognitive front (i.e. Kahneman and Tversky, 1996), a challenge which is perfectly compatible with Bourdieu's views on cognition and practical action. While it is not my contention that the totality of Bourdieu's work is unproblematic or that his is the last word on any of the problems addressed here, he has opened up the possibility of a type of sociological explanation that is at once inter-disciplinary (combining among other disciplines sociology, philosophy, history, psychology and linguistics), rigorous and comprehensive, and which takes sociological theorizing beyond the boundaries traditionally assigned to it.

References

- Alexander, Jeffrey. 1995. "The Reality of Reduction: The Failed Synthesis of Pierre Bourdieu." In *Fin de Siècle Social Theory*. New York: Verso.
- Bainbridge, William Sims, Brent , Edward E., Carley, Kathleen M., Heise, David R., Macy, Michael W., Markovsky, Barry and John Skvoretz. 1994. "Artificial Social Intelligence." *Annual Review of Sociology* 20: 407-436.
- Barbosa de Almeida, Mauro W. 1990. "Symmetry and Entropy: Mathematical Metaphors in the Work of Levi-Strauss." *Current Anthropology* 31: 367-385.
- Bloor, David. 1976. *Knowledge and Social Imagery*. London: Routledge.
- Bourdieu, Pierre. 2003. "Participant Objectivation." *Journal of the Royal Anthropological Institute* 9: 281-294.
- 1998. *Practical Reason*. Cambridge: Polity Press.
- 1996a. *The Rules of Art*. Translated By Susan Emanuel. Cambridge: Polity Press.
- 1996b. *The State Nobility*. Translated by Laurretta C. Clough. Cambridge: Polity Press
- 1994. "Rethinking the State: Genesis and Structure of the Bureaucratic Field." *Sociological Theory* 12: 1-18.
- 1990a. *The Logic of Practice*. Cambridge: Polity Press.
- 1990b. In *Other Words*. Cambridge: Polity Press.
- 1990c. "The Scholastic Point of View." *Cultural Anthropology* 5: 380-391.
- 1985a. "Social Space and the Genesis of Groups." *Social Science Information* 24: 195-220.
- 1985d. The genesis of the concepts of 'habitus' and 'field'. *Sociocriticism* 1(2), 11-24.
- 1984. *Distinction*. Translated by Richard Nice. Cambridge, Massachusetts: Harvard University Press.
- 1980. "The Production of Belief: Contributions to an Economy of Symbolic Goods." *Media, Culture and Society* 2: 261- 293.
- 1977. *Outline of a Theory of Practice*. Translated by Richard Nice. New York: Cambridge University Press.
- 1968. "Intellectual Field and Creative Project." *Social Science Information* 8: 89-119.
- 1967a. "Systems of Education and Systems of Thought." *International Social Science Journal* 19: 338-358.

- 1967b. Postface To And Translation Of Erwin Panofsky. *Architecture Gothique Et Pensée Scolastique*, Paris: De Minuit.
- and Jean-Claude Passeron. 1977. *Reproduction in Education, Society and Culture* translated by Richard Nice. Beverly Hills: Sage.
- and Loic Wacquant. 1997. "Passport to Duke." *Metaphilosophy* 28: 449-455.
- and Loic Wacquant. 1992. *An Invitation to Reflexive Sociology*. Chicago: University of Chicago Press.
- Brubaker, Rogers. 1985. "Rethinking Classical Social Theory: The Sociological Vision of Pierre Bourdieu." *Theory and Society* 14: 745-75.
- Bryson, Bethany. 1997. "What About the Univores? Musical Dislikes and Group-Based Identity Construction among Americans with Low Levels of Education." *Poetics* 25: 141-56.
- 1996. "'Anything But Heavy Metal': Symbolic Exclusion and Musical Dislikes." *American Sociological Review* 61: 884-899.
- Bunge, Mario. 1991. "A Critical Examination of the New Sociology of Science, Part 1." *Philosophy of the Social Sciences* 21: 524-560.
- Burt Ronald S. 1992. *Structural Holes: The Social Structure of Competition*. Cambridge: Harvard University Press.
- 1982. *Toward A Structural Theory Of Action*. New York: Academic Press.
- Calhoun, Craig. 1993. "Habitus, Field and Capital: The Question of Historical Specificity." Pp 61-88 in Craig Calhoun, Edward LiPuma and Moishe Postone (Eds.) *Bourdieu: Critical Perspectives*. Cambridge: Polity Press.
- Camic, Charles. 1986. "The Matter of Habit." *American Journal of Sociology* 91: 1039-1087.
- Cerulo, Karen A. 2002. "Establishing a Sociology of Culture and Cognition." pp 1-12 in Karen Cerulo (Ed) *Culture in Mind: Toward a Sociology of Culture and Cognition*. New York: Routledge.
- Coleman, James S. 1990. *Foundations of Social Theory*. Cambridge: Harvard University Press.
- Collins, James. 2000. "Bernstein, Bourdieu and the New Literacy Studies." *Linguistics and Education* 11: 65-78.
- Couldry, Nick. 2003. "Media Meta-Capital: Extending the Range of Bourdieu's Field Theory." *Theory and Society* 32: 653-78.
- DiMaggio, Paul. 2002. "Why Cognitive (and Cultural) Sociology Needs Cognitive Psychology." pp 274-281 in Karen Cerulo (Ed) *Culture in Mind: Toward a Sociology of Culture and Cognition*. New York: Routledge.
- 1997. "Culture and Cognition." *Annual Review of Sociology* 23: 263-287.

- 1979. "Review Essay: On Pierre Bourdieu." *American Journal of Sociology* 6: 1460-1474.
- Douglas, Mary. 1966. *Purity and Danger* London: Routledge.
- Dumais, Susan A. 2002. "Cultural Capital, Gender, and School Success: The Role of Habitus." *Sociology of Education* 75: 44-68.
- Durkheim, Emile and Marcel Mauss. 1963. *Primitive Classification*. Chicago: University of Chicago Press.
- Fararo, Thomas J. and Carter T. Butts. 1999. "Advances in Generative Structuralism: Structured Agency and Multilevel Dynamics." *The Journal of Mathematical Sociology* 24: 1-65.
- Fraisse, Paul. 1964. *The Psychology of Time*. Translated by J. M. A Leith. London: Eyre and Spottiswoode.
- and Jean Piaget. 1968. *Experimental Psychology: Its Scope and Method*. Volume I, Translated by Judith Chambers. New York: Basic Books.
- Gainotti, Merete Amann. 1997. "Jean Piaget (1896-1980)." *International Sociology* 12: 373-379.
- Gardner Howard. 1967. "Piaget and Levi-Strauss: The Quest for Mind." *Social Research* 37: 348-365.
- Giddens, Anthony. 1984. *The Constitution of Society*. Cambridge: Polity Press.
- Grinevald, Jacques. 1983a. "Piaget on Lévi-Strauss: An interview with Jean Piaget." *New Ideas in Psychology* 1: 73-79.
- 1983b. "Lévi-Strauss' reaction: An interview with Claude Lévi-Strauss." *New Ideas in Psychology* 1: 81-86.
- Gruber, Howard E. and Jacques Vonèche. 1995. *The Essential Piaget: An Interpretive Reference and Guide*. New York: Basic Books.
- Grusky, David B. and Jesper B. Sorensen. 1998. "Can Class Analysis Be Salvaged?" *American Journal of Sociology* 103: 1187-1234.
- Harker, Richard K. 1984. "On Reproduction, Habitus and Education." *British Journal of Sociology of Education* 5: 117-127.
- Harker, Richard and Stephen A. May. 1993. "Code and Habitus: Comparing the Accounts of Bernstein and Bourdieu." *British Journal of Sociology of Education* 14: 169-178.
- Hofstadter, Douglas. 1990[1979]. *Gödel, Escher, Bach*. New York: Basic Books.
- Holt, Douglas B. 1998. "Does Cultural Capital Structure American Consumption?" *The Journal of Consumer Research* 25: 1-25.
- 1997. "Distinction In America? Recovering Bourdieu's Theory of Taste from Its Critics." *Poetics* 25: 93-120.

- Howard, Judith A. 1994. "A Social Cognitive Conception of Social Structure." *Social Psychology Quarterly* 57: 210-227.
- Johnson, Christopher. 1997. "Anthropology and Sociology: From Mauss to Levi-Strauss." *Modern and Contemporary France* 5: 421-431.
- Kahneman, D. and Tversky, A. 1996. "On the Reality of Cognitive Illusions." *Psychological Review* 103: 582-591.
- King, Anthony. 2000. "Thinking with Bourdieu against Bourdieu: A 'Practical' Critique of the Habitus." *Sociological Theory* 18: 417-433.
- Kitchener, Richard F. 1991. "Jean Piaget: The Unknown Sociologist?" *The British Journal of Sociology* 42: 421-442.
- 1981. "Piaget's Social Psychology." *Journal for the Theory of Social Behaviour* 11: 253-277.
- Lahire, B. 1999. *Le Travail Sociologique De Pierre Bourdieu*. Paris: La Découverte.
- Lamont, Michele. 1992. *Money, Morals, and Manners*. Chicago: University of Chicago Press.
- Lamont, Michele and Annette Lareau. 1988. "Cultural Capital: Allusions, Gaps and Glissandos in Recent Theoretical Developments." *Sociological Theory* 6: 153-168.
- Levine, Alexander T. 2000. "Which Way Is Up? Thomas S. Kuhn's Analogy to Conceptual Development in Childhood." *Science and Education* 9: 107-122.
- Lévi-Strauss, Claude. 1988. *The Jealous Potter*. Chicago: University of Chicago Press.
- 1987 [1950]. *Introduction to the work of Marcel Mauss*. Translated by F. Baker. London: Routledge.
- 1966. *The Savage Mind*. Chicago: University of Chicago Press.
- 1963. *Structural Anthropology*. Chicago: University of Chicago Press.
- LiPuma Edward. 1993. "Culture and the Concept of Culture in Theory and Practice." Pp 14-34 in Craig Calhoun, Edward LiPuma and Moishe Postone (Eds.) *Bourdieu: Critical Perspectives*. Cambridge: Polity Press.
- Lizardo, Omar. 2004. "Can Cultural Capital Theory Be Reconsidered In The Light Of World Polity Institutionalism? Evidence from Spain." University of Arizona: Unpublished Manuscript.
- Maryanski, Alexandra and Jonathan H. Turner. 1991. "The Offspring of Functionalism: French and British Structuralism." *Sociological Theory* 9: 106-115.
- Mayrl, William W. 1978. "Genetic Structuralism and the Analysis of Social Consciousness." *Theory and Society* 5: 19-44.
- Munari Alberto. 1994. "Jean Piaget (1896-1980)." *Prospects: The Quarterly Review of Comparative Education*. Paris, UNESCO: International Bureau of Education,

- vol. XXIV: 311–327.
- Murphy, Raymond. “The Struggle for Scholarly Recognition: The Development of the Closure Problematic in Sociology.” *Theory and Society* 12: 631-658.
- Nash, Roy. 2003. “Social Explanation and Socialization: On Bourdieu and the Structure, Disposition, Practice Scheme.” *The Sociological Review* 51: 43-62.
- 1999. “Bourdieu, Habitus, and Educational Research: Is It All Worth the Candle?” *British Journal of Sociology of Education* 20: 175-187.
- 1990. “Bourdieu on Education and Social and Cultural Reproduction.” *British Journal of Sociology of Education* 11: 431-447.
- Ortner, Sherry B. 1984. “Theory in Anthropology since the Sixties.” *Comparative Studies in Society and History* 26: 126-66.
- Peterson, Richard A. 1992. “Understanding Audience Segmentation: From Elite and Mass to Univore and Omnivore.” *Poetics* 21: 243-258.
- Piaget, Jean. 1984. “The Role of Imitation in the Development of Representational Thought.” Pp. 105-114 in: Voyat, G. (Ed.): *The World of Henri Wallon*. New York: Jason Aronson.
- 1978. *Success and Understanding*. Massachusetts: Harvard University Press.
- 1977. “A History of Psychology in Autobiography.” Pp. 115-147 in *Piaget Sampler: An Introduction to Jean Piaget Through his Own Words*, Edited by Sarah F. Campbell. New York: Wiley.
- 1971a. *Biology and Knowledge*. Edinburgh: Edinburgh University Press.
- 1971b. *Science of Education and the Psychology Of The Child*. New York: Viking Press.
- 1970a. *Genetic Epistemology*. Translated by Eleanor Duckworth. New York: Columbia University Press.
- 1970b. *Structuralism*. New York: Basic Books.
- 1950. *Discours du directeur du Bureau international d'éducation*. p. 35–36, Dans : Treizième Conférence internationale de l'instruction publique : procès-verbaux et recommandations. Genève, Bureau international d'éducation.
- 1936. *Origins of Intelligence In The Child*. London: Routledge & Kegan Paul.
- 1924. *Judgment and Reasoning In The Child*. London: Routledge & Kegan Paul.
- and Alina Szeminska 1941. *The Child's Conception of Number*. London: Routledge & Kegan Paul.
- and Rolando Garcia. 1989[1983]. *Psychogenesis and the History of Science*. New York: Columbia University Press.
- Maier, Robert. 1996. “Knowledge and Social Interaction.” *Culture and Psychology* 2: 333-342.

- Merleau-Ponty, Maurice. 2002. *Phenomenology of Perception*. New York: Routledge.
- Robbins, Derek. 1993. "The Practical Importance of Bourdieu's Analyses of Higher Education." *Studies in Higher Education* 18: 151-64.
- Schurmans, Marie.-Noelle and Jean Paul Bronckart. 1999. "Pierre Bourdieu - Jean Piaget. Habitus, Schèmes Et Construction Du Psychologique." Pp. 153-175 in B. Lahire (Ed.), *Le Travail Sociologique De Pierre Bourdieu*. Paris: La Découverte.
- Smith, Leslie. 1997. "Piaget Before and After." *History of the Human Sciences* 10: 125-131.
- Swartz, David L. 2003. "Drawing Inspiration from Bourdieu's Sociology of Symbolic Power." *Theory and Society* 32: 519-29.
- Swidler, Ann. 2000. "Out of Our Minds: Where Cognition and Culture Intersect." Paper presented at the Sociology of Culture Mini-Conference Session on Culture and Cognition, George Mason University, August 11.
- Throop, Jason C. and Keith M. Murphy. 2002. "Bourdieu and Phenomenology: A Critical Assessment." *Anthropological Theory* 2: 185-207.
- Vandenberghe, Frederic. 1999. "'The Real Is Relational': An Epistemological Analysis of Pierre Bourdieu's Generative Structuralism." *Sociological Theory* 17: 32-67.
- Wacquant, Loic J. D. 1996. "Foreword to the English-language translation of Pierre Bourdieu, *The State Nobility*." Pp. VIII-XXII in *The State Nobility*, Translated by Laretta C. Clough. Cambridge: Polity Press.
- _____. 1993. "Bourdieu in America: Notes on the Transatlantic Importation of Social Theory." Pp 235-262 in Craig Calhoun, Edward LiPuma and Moishe Postone (Eds.) *Bourdieu: Critical Perspectives*. Cambridge: Polity Press.
- Warde, Alan and Gindo Tampubolon. 2002. "Social Capital, Networks and Leisure Consumption." *The Sociological Review* 50, 2: 155-80.
- Warde, Alan, Tomlinson, Mark, and Andrew McMeekin. 2000. "Expanding Tastes? Cultural Omnivorousness in the UK." CRIC, the University of Manchester and UMIST. CIRC Discussion Paper N. 37.
- Warde, Alan, Martens, Lydia and Wendy Olsen. 1999. "Consumption and the Problem of Variety: Cultural Omnivorousness, Social Distinction and Dining Out." *Sociology* 33: 105-127.
- Zerubavel, Eviatar, 1997. *Social Mindscales. An Invitation to Cognitive Sociology*. Cambridge, Mass.: Harvard University Press.
- Zimmerman, Marc. 1979. "Lucien Goldmann: From Dialectical Theory to Genetic Structuralism." *Berkeley Journal of Sociology* 23: 151-182.