Explaining the Interpretive Mind*

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Abstract: In present discussions on the epistemological foundations of psychology there are two prominent positions. These positions refer, on the one hand, to the causal-explanatory claims of the Piagetian tradition and, on the other hand, to the hermeneutic-interpretive claims of the Vygotskian tradition. In this paper both traditions are put in their wider philosophical contexts. Against this background the author argues that the danger of causally explaining the cultural practices, by which human beings construct and understand the meanings of their world, is to reduce their complexity: to narrow down a great variety of interpretive strategies to just one mode of thought. This mode – to a large degree defined by the modernist episteme – has been challenged not last by the hermeneutic options of the Vygotskian approach.

Key Words:
Explanation, Understanding, Interpretation, Mind, Cultural / Discursive/ Semiotic practices

In this paper I shall look at some options Piaget and Vygotsky have opened up for the epistemology of psychology. In particular, I will focus on the issues of causal explanation and interpretive understanding as modes of knowledge and thought. The former can be considered fundamental for Piaget [see Beilin, 1996] and the tradition which has been built upon his work; Piaget's entire psychology aimed at explaining the (onto)genesis of this mode of thought in its pure form, the "logico-scientific intelligence." The latter issue prevailed in Vygotsky's approach and, even more, in the traditions which have built upon it.¹ The explanation-interpretation problem, I shall argue, is crucial for psychology in a twofold sense. On the one hand, all forms of knowing and "making sense" are cognitive activities, that is to say, they are genuine subjects of psychological investigation – ranging from folk-psychological forms of meaning, intention, thought and belief to metacognitive reasoning. It is exactly for this reason that, on the other hand, explanation and understanding are forms of knowledge on which the epistemological claims of psychology itself, as of all sciences, are grounded.

At stake is what endows adequate intellectual, scientific, and methodological form to psychology: Causal-explanatory principles of "logico-scientific" intelligibility or hermeneutic-interpretive principles of "cultural," "discursive," and "narrative" modes of understanding? The discussion of this problem has recently been fuelled with new arguments by a debate on Human Development (see Astington and Olson [1995], the comments on this paper by Olson and Astington's [1995], Fleisher Feldman [1995], Bruner [1995], Leadbeater & Raver [1995], and Olson and Astington's [1995] reply; I have discussed Olson and Astington's position in more detail in Brockmeier [1996]) – a debate, it seems to me, that includes the currently most advanced Piagetian and Vygotskian lines of argument. But before picking up the threads of this discussion I will begin with situating the issue within a broader historical and philosophical context. My first
point is to remember that the epistemological antinomy between causal-explanatory and hermeneutic-interpretive principles of knowing does not reflect any "real" or "natural" distinction. There is, I shall argue, no such thing as an ontologically given demarcation line between explanatory and interpretive "objects" or "methods" of investigation. Rather, the idea of this dichotomy represents itself a specific cultural *episteme* which, historically speaking, is the outcome of a relatively recent development.

**Two epistemological traditions**

In present philosophical discussions in and on psychology it is not difficult to identify two major epistemological traditions which usually refer to each other, even with opposite claims. Despite sometimes new terminologies, and an apparently new fervor, these traditions are all but creations of the era of cognitivism. When, almost one century ago, Wilhelm Dilthey [1977] and Max Weber [1957] distinguished the epistemological realm of *Naturwissenschaften* (the natural sciences) from that of *Geisteswissenschaften* (the historically and culturally based human sciences), they only reflected the status quo of the Western intellectual landscape after the scientific revolutions of the nineteenth century. Recognizing the existence of two epistemological and academic "cultures" – distinguished by their intellectual and material practices, convictions and, as it were, academic life styles – this juxtaposition came as an obvious conclusion from the definitive failure of one of the great projects of Enlightenment, namely to develop a coherent unity of scientific, historical, cultural and philosophical forms of knowledge. One of the last attempts of this project was Hegel's all-embracing philosophy of the individual and historical development of the mind. It aimed at constructing a theoretical system which, in itself, was able to demonstrate the dialectical interwovenness of causal-explanatory and interpretive-hermeneutic forms of the mind.
Of course, the claim of modern psychology is to have shed the old metaphysical baggage of, among other things, Hegel's philosophical psychology and its dialectical epistemology. Indisputably, psychology has been quite successful in this task, hereby in its way realizing what Bruno Latour (1993) calls the "purification" of the modern mind. That is to say that psychology, in its effort to become a "real" science, has contributed to conceptually distinguishing and making opposing pairs from nature and culture, subject and object, mind and body. Such careful theoretical and epistemological distinctions, Latour argues, are the consequence of a purifying practice which, in and alongside modern science, defines modernity. In this sense, such oppositions only make sense against the background of the Cartesian program of modern thought – a program which, consequently, embraces both a speculative metaphysical and an empiricist-positivist side. Outside this episteme these demarcations lose their meaning. Thus, it does not come as a surprise that in current discussions of the philosophy and history of science there is not only Latour to state that this modernist episteme has long become a closed chapter in history of thought.

But even if we accepted the claim that psychology has indeed become "modern" in this sense, it certainly has not been able – as the present discussion shows – to get rid of the dilemma of how to reconcile the two sides of its subject, usually associated either with nature, causal explanation and \textit{Naturwissenschaft}, or culture, hermeneutic understanding and \textit{Geisteswissenschaft}. "Man", as Hegel and Vygotsky pointed out along the lines of the philosophy of Enlightenment, lives an existence which is physical and biological and, at the same time, societal and historical. They are organisms which create intellectual, religious, and aesthetic meaning systems that go far beyond the explanatory range of organismic functions. This, of course, is not new; nor is it difficult to be borne out: Just try seriously account for complex symbolic productions – such as the development
of a symphony, the content of a dream, or a conversation between lovers – exclusively in terms of physical laws. But how, then, if any, are they to be described in a „scientific“ fashion?

Whatever the epistemological or linguistic framework of such description, it is always one mind, the human mind, to be responsible for such cultural productions as science and poetry, religious belief and theories of knowledge. This was, essentially, the Kantian cornerstone upon which Hegel and the whole philosophy of Enlightenment tried to build one epistemology. What is in question in the present debate on the explanatory or interpretive epistemology of psychology is, of course, not this cornerstone. The human mind and its meaning creating potentials, not any transcendent point of reference, has been, in one sense or another, the "materialist" basis for all modern philosophy and science, from Enlightenment to the late 20th century and the renewed, self-critical "project of Enlightenment", suggested by Habermas [1992] – and we certainly can add here the Piagetian and Vygotskian epistemologies. Rather, the question is to which extent the knowing mind – being undisputably both the subject of logico-scientific and discursive-interpretive activities – is itself subject to explanatory Naturwissenschaften or/and to interpretive Geisteswissenschaften. To reformulate the title of this special issue of Human Development, "Where is the Mind?": How many epistemologies do we need to explore mind? (Let us assume for a moment that the Cartesian noun-form „mind“ would exhaust the topic ontologically.)

Of course, there is another question that adds a sharp overtone to this debate: What is the academically legitimate epistemology of psychology? Since the mainstream view, in the end, comes down to the claim that there cannot be such thing as an interpretive and discursive cognitive psychology, at least not in as far as it wants to stick to „scientific“ standards (borrowed from a positivist misunderstanding of physics), the argument is not only about "pure thoughts." This suggests taking into account still another level of the controversy, a "structural" or institutional
level, so to speak. This, I suspect, can best be described in Foucault's [1971; 1980] terms as that "order of discourse" that defines in every "episteme" what is canonical and what not.

Explaining or understanding children's theory of mind?

Astington and Olson [1995], drawing on the literature of children's theory of mind, set out to develop what seems to me the currently most advanced argument that advocates the causal-explanatory case of "scientific psychology." While, on the one hand, recognizing the sign-mediated reality in which all human activity is culturally embedded, they claim, on the other hand, the priority of causal and naturalistic explanation for what they consider to be the biological and cognitive foundations of those "mental capacities" which are involved in the hermeneutic practices of interpretive cognition. On this view, learning the culturally based (discursive and narrative) forms of interpretation "depends on the availability of some essential, underlying (cognitive) abilities and competencies" [Astington & Olson 1995, p. 186].

What puts this approach in line with Piaget's epistemological thought is not only the classical rationalist point that all empirical knowledge has conceptual, or cognitive, presuppositions – the "conditions of the possibility" of the intellect, as the Piagetian Kantian would put it. There is also the, in the end, biological definition of psychology itself. Like Piaget [1967], Olson [1992, 294/5] states:

"As a scientific psychology, cognitive theory aspires to a completely naturalistic explanation of behavior, an explanation which adverts to causes whether chemical, biological, neuronal or computational. Causes are the explanatory coin of the biological sciences of which the science of psychology is one. So we must have causes in an explanatory cognitive psychology."
How can, in this view, the two epistemological claims - the hermeneutic-interpretive and the causal-explanatory side of psychology - be reconciled? By two assumptions essential to all cognitive psychology. First, given the semiotically and discursively mediated reality of all "higher psychological functioning", to use Vygotsky's term, it is exactly the emergence of this individual interpretive capacity from biological and cognitive presuppositions which must be causally explained. To investigate psychologically how children develop their ability to interpret and to negotiate the meanings of signs, is to provide a scientific explanation of the child's folk understanding. As Fleisher Feldman [1995, p. 196-7] reformulates this proposal in Von Wright’s [1971] terms, Astington and Olson recommend to explain the child’s Aristotelian (i.e., teleological) theory of mind with a scientist’s Galilean (i.e., causal) theory of it. The second assumption – which is another quintessential premise of cognitivism, namely that mind is a representational system – allows us to integrate even the cultural reality of signs and meanings into the enterprise of this kind of scientific intelligibility: Mind, as a representational apparatus, is seen not only as determined simply by chemical and biological causes but also as operating on the basis of symbols and meanings [e.g., Olson, 1993, p. 293]. Like all cultural practices, these symbols and meanings are interpreted in terms of mental „models“. These models or „basic concepts of mind“ – the „structures“ or „schemata“ in Piaget’s language – play a crucial role in all conceptions of cognitive representationalism. And since these models are "causally determined by their cognitive or representational capacities and by the stock of concepts currently available" [Olson & Astington, 1995, p. 215], all semiotic activities, in the end, appear to be dependent on a causal matrix. In this way, the Vygotskian side of the mind seems to be effortlessly integrated into its Piagetian side.

To sum up, Olson and Astington, differing from the majority of their colleagues in the hard-core cognitive sciences (and, in this respect, also with Piaget), accept the hermeneutic reality of
the meaning- and sign-mediated "psychic reality." But they do so only in as far as this reality can be reconceptualized as subject of "scientific explanation," that is, so to speak, as the epiphenomenon of an underlying "causal machinery" that "actually carries out such interpretive activities" [Olson & Astington, 1995, p. 215].

Having said this, I should, however, emphasize that I have referred only to Olson and Astington's explicitly theoretical and, especially, epistemological claims. I have refrained from examining the results of their empirical research on the child's theory of mind. In these studies, Astington and Olson have investigated an impressively wide range of cultural forms of interpretation which are centrally involved in the child's attempts to know other minds. Many of these studies embed the child in a "semiotically rich and interpreted world," as Fleisher Feldman [1992, p. 108] remarked. They outline an epistemology of other minds which is – as I believe [cf. Brockmeier, 1995] – by no means sufficiently held within the framework of the scientistic "self-concept" of their authors.

**Causes and rules**

In the light of what I have called the Vygotskian option, this explanatory model raises, however, two major questions to which the answers may be elusive. First, why do we need two different epistemologies to investigate the developing mind, one for its (cultural and semiotic) function, another for the (causal and naturalist) genesis of this function? This dualism – or shall we say contradiction? – is all the more questionable if we take into account a particular quality of the mind: We can neither understand its function independently from its genesis nor its genesis independently from its (natural and social) functional context. We have learnt many details of this functional dialectic in the child's development from both Piaget's *Genetic Epistemology* (consider,
e.g., the "assimilation-accommodation" theorem) and Vygotsky's cultural-genetic approach (e.g., the theorem of the "zone of proximal development") [Brockmeier, 1983].

Bruner [1995, 1990] has reminded us of the traditional (Aristotelian) solution, also supported by Dilthey and Weber, of the dilemma of the two epistemologies, namely that it is the object of investigation that determines which epistemology is appropriate to it. But he has also remarked that there is something which is in principle hybrid about the study of children's theories of mind, inasmuch as it always appears to entail both causal explanation and interpretation. This is all the more true, if we look at Piaget's constructivist version of the explanatory model [Brockmeier, 1996]. Nevertheless, let us for a moment accept the "object-specific" approach. Moreover, let us assume we manage to agree upon the object: the development of human cognition. But how, then, are we to decide what is the specific human dimension of cognition? Cognition embraces a broad spectrum of neurophysiological and psychological processes; only some of them are specific for humans. It has often been pointed out what makes them specific. One feature, already mentioned, is that humans are not only biologically determined but live in culturally meaningful forms of life. These are characterized by some distinctive qualities, such as their semiotic (especially linguistic) mediation which endows the human mind with its distinctive and rich capacity to create and discover meaning; this is closely connected with the intentionality of our minds and actions which has, in turn, to do with another specific feature: human agency.

What all these essentials of our species share is that they are meaning-oriented. Therefore it has always been supposed that human actions are the domain of interpretive understanding – another element of the „classical mantra“, particularly emphasized by Bruner [1995]. There is a further aspect, however, that seems to me equally important. All these human features and activities are ordered by rules. From the vantage point of developmental psychology, now, the question is: How do we learn to follow and – quintessential for humans – not to follow a rule? The
answer, given in philosophical terms by Wittgenstein and in psychological terms by Vygotsky, is:

There is no learning to swim before entering the water. It is worthwhile even to remember the classical philosophical place of this argument. This is Hegel's famous comment on the Kantian idea of an intellectual and cognitive *a priori* that, as Kant claimed, determines the "condition of the possibility" of all, so to speak, culturally applied knowing. Hegel [1975, p. 14] remarked that "to seek to know before we know is as absurd as the wise resolution of Scholasticus, not to venture into water until he had learned to swim." Or, as we also can say, how to follow a rule can only be learnt by participating in social and discursive practices themselves.

It was Vygotsky who first systematically investigated the early ontogenetic forms of these activities, focusing on the social contexts of use in which language and other sign systems increasingly mediate activity and become a form of human action themselves. To formulate an important outcome of these studies on the cultural mediation of the mind by „external symbol systems“ [Cole & Wertsch, 1996] in Wittgenstein's terms, we can state that already these early discursive practices are governed not by causes (or causalities) but by rules. If rules were causes, humans could never break them. As we can break them, however, and, in fact, do so all the time, we have to re-negotiate them and, indeed, do so all the time.

In his discussion of rules in the genesis of action Wittgenstein [1953] shows that the apparent inexorability of rules, their sometimes seemingly (causal or teleological) necessity, is an illusion, albeit a wide-spread one. Wittgenstein's argument, as philosophers such as Hacker [1987] and Harré [1990] have elucidated, is that if rules were causes of action then they would unavoidably determine present and future. However, in acting, speaking and thinking, humans do not just follow rules. The omnipresent problem is, rather, how rules are to be applied, a difficulty that, not the least of which, depends on a great variety of contextual circumstances which in "real life," as we all know, are constantly changing. Thus, it is not the rules that are, like causes, inexorable but
the way that we use rules. In other words, nothing makes us follow this or that rule in this or that way, least of all the rule. This, then, wipes out the last links of the putative causal matrix, for it is the problem of agency, intentionality and subjectivity that now comes to the fore.

It is for this reason that human actions can neither be sufficiently described by "Humean causes", nor can they be sufficiently explained by "teleological causes" – a distinction suggested by von Wright [1971] and picked up in the recent debate by Fleisher Feldman [1995] and Astington & Olson [1995b]. "People use rules, rules do not use people," as Harré [1993, p. 182] puts the matter, and because this is so, rules cannot be understood as principles of prediction. They do not explain – either in terms of "Humean" or "teleological causes" – but are themselves a part of what has to be "explained," that is, interpreted. It is this kind of explanation that I suggest calling interpretive explanation.

The mind and its strategies of interpretation

In summary, to understand how human beings construct and understand their world, we must examine the genesis of a broad spectrum of sign-mediated cultural practices. In reconstructing the development of these language games, as Wittgenstein termed such highly context-bound discursive activities, we soon realize that their meanings are not engendered by any cognitive "causal machinery," be it a mental rule system nor by any other hidden generic dynamism. On this view, the danger of causally explaining the interpretive mind is, first of all, to reduce its enormous complexity: to narrow down, by an epistemologically restricted framework, a great variety of modes of thought to just that one which fits the "paradigmatic" standards of general causal laws. As Fleisher Feldman [1992, p. 116] has noted, even many current studies of narrative tend to
reduce stories to event sequences (which, like "scripts", do have predictions), stripping such narratives of tropes, discursive forms, and other literary devices which cannot be understood but in an interpretive, and non predictive, manner. Again, as has often been the case in the history of psychology, it is in the name of a rather limited scientific model of predictive intelligibility – in other disciplines outdated for a long time – that the subject is defined. And again, the only subject that proves, at the end of the day, to be worthy of scientific psychology is a "causal machinery" – as if nothing had changed since 18th century metaphysics and 19th century positivism.

What is most precarious in the attempt to explain the interpretive mind causally is that it misses the very heart of human cognition: its potential to use a great variety of differentiated strategies of understanding – all of them entail both hermeneutic and explanatory aspects. Only one of these strategies, which is to a large degree defined by the symbolic code of the modernist episteme, operates according to the specific rules of interpretation that have been called "causal-explanation." The great multitude of our interpretive strategies are as flexible and, as Piaget would put it, "adaptable" as required by the material and symbolic contexts of meaning in which they are employed. Employed by whom? By humans endowed with agency, subjective intentionality and creativity – that is, philosophically speaking, with unpredictable "free will." Indeed, it gives confidence that this has always thrown a spanner in the works of causal machineries.
References


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1 With this assessment I refer to Vygotsky as a theorist of sociohistorical and semiotic psychology. It is especially the cultural-hermeneutical option that, in the last two decades, became most influential [see, e.g., Wertsch, 1991]. However, in his writings Vygotsky did not explicitly exclude the methods of causal, natural science from psychology, even if he was convinced of the failure of *mechanistic* explanation, as in behaviorism, reflexology and reactology. For an historical account of Vygotsky's differentiated views of, and contributions to, the epistemological discussion on causal-explanatory and interpretive psychology in the 1920s and 1930s see Van der Veer & Valsiner [1991].
This distinction, based on the assumption of – became very influential in most further discussions on the relation between science and humanities. For an overview of the debates between Richert, Paul, Windelband, Rickert, Lamprecht, Dilthey, and Wundt on the foundations of Völkerpsychologie at the crossroads between Geisteswissenschaften, Kulturwissenschaften, and Naturwissenschaften see Jahoda [1992]. In one form or another, the Erklären-Verstehen distinction reappeared in the works of many 20th century philosophers of natural science (e.g., Hempel [1965], Von Wright [1971]; Dennett [1968]) and of the human sciences (e.g., Habermas [1972], Bakhtin [see Todorov, 1984]; Harré [1993]; Harré & Gillett [1994]). In psychology, this discussion was given a new impetus by Bruner's [1986] distinction of the "logico-scientific or paradigmatic mode" and the "narrative mode" of thought, and his advocating of a meaning-oriented psychology along the cultural-historical lines of Geisteswissenschaft [Bruner, 1990].