

Gerard Duveen

## Piaget ethnographer

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**Abstract.** *Although there have been extensive discussions of Piaget's theory, relatively little attention has been given to his research methods. Indeed, where Piaget's methods have been discussed they have generally been attacked for what are perceived as limitations and inadequacies. However, both in his work based on observations of infants and particularly in the clinical interviews with children and adolescents Piaget's research can be seen as a striking demonstration of the power of the systematic use of qualitative methods. Piaget's work in fact offers a paradigmatic example of an interpretive methodology in developmental psychology, not only for the intimate relations between interview and theory evident in all his research, but also for the argument through which the research is presented to the reader. As well as reviewing the clinical interview itself, this article also considers the different logics of research evident in this method and in that used by Piaget's critics.*

**Key words.** *Clinical interview – Ethnography – Methods – Piaget*

### 1. Introduction

It might at first sight appear odd to introduce a discussion of Jean Piaget into a consideration of qualitative methods, and perhaps even odder to characterize his work as ethnographic. However,

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my intention in this article is to do precisely this and to suggest that Piaget's work provides a paradigmatic example of qualitative, or more broadly interpretive, research (*an* example, and not *the* example, since qualitative methods have always embraced a pluralism). While this article focuses on the example of Piaget, it is also the case that the renewed interest in qualitative methods in psychology could be further enriched by sustained attempts to recover the significant models offered by earlier generations of psychologists.

Even within the field of developmental psychology, however, Piaget's contribution to a qualitative methodology has been eclipsed. This has been the case even where such a contribution might have been expected to have a continuing resonance, for example, the recent collection on *Ethnography and Human Development* (Jessor et al., 1996) includes only a single reference to Piaget. Two reasons for this eclipse can be identified fairly easily. First, the rise of Vygotskian or "socio-cultural" approaches have emphasized the significance of concrete contexts for the analysis of human development, a perspective which has been seen in contradistinction to what has been viewed as the abstract and decontextualized account found in Piaget's analysis of cognitive development. As I have argued elsewhere (Duveen, 1997), such a way of contrasting Piagetian and Vygotskian perspectives is misleading, since it undervalues Piaget's engagement with social processes and overvalues the extent of Vygotsky's account of the influence of social life on human development. However, for the present essay it is sufficient to note that there has been a general tendency for the Vygotskian perspectives to displace Piagetian perspectives in recent developmental psychology.

The second reason for the eclipse of Piaget's methodological contribution is more germane to the theme of this article, since it refers to Piaget's methods themselves which have been the specific object of severe critical attention. The most notable critics have been experimentalists who have tended to suggest that what might be considered the most characteristically Piagetian aspects of children's developing thinking are, in fact, no more than artefacts of his inadequate methods, and that more stringent experimental controls have revealed greater consistency and continuity in the developmental process than Piaget's insistence on discontinuities and clearly demarcated cognitive stages. Such a view rests upon a profound misapprehension about Piaget's method. Indeed it is a misapprehension

which is at the centre of my concern, since it relates to the logic of Piaget's method and it is this logic which I suggest can be characterized as ethnographic.

Ethnographic as a term to characterize a research programme has come to be associated with what Cliff Geertz, quoting Gilbert Ryle, described as "thick description" (Geertz, 1973; see also Duveen and Lloyd, 1993). On the one hand the idea of "thick description" points towards the effort at capturing the intentional structures of the social actors, groups and institutions being described, while on the other it also highlights the interpretive activities of the ethnographer themselves. In this way the ethnographic perspective establishes a dialectic between observation and interpretation, between the material collected and the categories employed in rendering it comprehensible. I shall return to the character of ethnography later in the article; for the moment this brief formulation is sufficient to justify examining Piaget's work under this rubric. In few other psychological researchers does this dialectic between material and its interpretation stand out so clearly as it does in Piaget's work, not only in the sense that one can trace this dialectic at work throughout his long career, but also in the way in which in each of his studies he is concerned to present his work to the reader in such a way that he can persuade the reader of the correctness of his interpretation of the material. This "persuasive stance" which Piaget adopts in his writing reflects a sensitivity to the ethnographic situation in which it is not appeals to the weight of external or objective facts which can sustain or justify a particular interpretation, but rather the ethnographer's ability to convince a reader that the system of categories which is proposed is adequate to grasp and render intelligible the social action under investigation. I should add that Piaget never thought that he had left the field of science by pursuing his research through this method. Quite the opposite in fact, he always insisted on the scientific character of his work. In this sense he does not pose a contrast between quantitative and qualitative methods as the touchstone for separating science from some other form of enquiry. Quantitative research too must pass through the medium of interpretation if it is to render its material intelligible. Rather, the operative contrast here is between a view of science as an interpretive endeavour and a purely positivist view.

## **2. The development of the clinical interview**

As is well known Piaget came to the study of child psychology through his concern with developing a biological epistemology. His training and formation in natural history and zoology had given him a developmental or genetic perspective, so that it seemed altogether consistent to pursue his interest through a study of how knowledge developed in the human child. But as well as providing a broad framework through which he could pose theoretical questions and structure a research programme, Piaget's background also provided him with a methodological approach. Central to this approach was observation and the interpretation of the material this brought to light. Even in his early work in natural history as a teenager in Neuchâtel it was observation and interpretation which were the keys for classifying fossils and other fauna and flora. Again in his doctoral work on molluscs he relied on close observation and classification of different forms and their adaptation to different environments which was the basis for his research. In fact this emphasis on adaptation provides an early glimpse of a second theme which became important for Piaget's methodological approach to child psychology, namely the sense that it is through studying adaptive activities that underlying structures can be analysed most clearly.

Piaget's first professional encounters with children during the time he spent in Paris in the laboratory of Simon had convinced him that the development of thought in children was a progressive process of changing forms of structure and organization. If children reason differently from adults, this is not simply a question of ignorance, but rather a consequence of a different kind of mentality, so that for the child psychologist the issue becomes one of investigating and analysing these changing forms of mentality which lead to adult thinking. Here too, of course, the biological perspective he brought with him is evidently present. Living things do not develop from chaos to order, but rather from one form of structural organization to another. So for Piaget the methodological question when he began to study children's thinking in Geneva in the 1920s was to find a technique which could address questions of structure and organization as a way of investigating the child's developing mentality. And he turned first of all to a method he knew from his own training, that of observation.

His early works, in fact, seem an extension of his studies of natural history in which children are observed in their everyday habitats (schools) and these observations sorted and classified to reveal the developing structural organization of their thinking. However, as he noted in his introduction to *The Child's Conception of the World* (1926/1929) pure observation is limited in some important ways. Children do not always explicate their understanding explicitly, and it can be hard to distinguish their real convictions from playful attitudes. Thus he began to interview children as a means of exploring their understanding of the world. This was the beginning of what has become known as the "clinical method", which by the time he began his studies of the development of operations in young children in the late 1930s had assumed the characteristic form through which it has become familiar.

It is interesting to follow the emergence of the clinical method in Piaget's research (cf. Vinh-Bang, 1966; Ginsburg, 1997), both because there is much to be gained by examining this development (a kind of recursive application of Piaget's own dictum that if we want to understand something we need to understand how it has developed), and because this development shows the extraordinary dialectic between research and theory in the formation of Piaget's work. One can in fact identify five steps, or stages, in the development of the clinical method, and an overview of these steps is presented in Table 1. These five steps in fact overlap with other more general accounts of the development of Piaget's work. Montangero and Maurice-Naville (1997), for example, distinguish four main periods in Piaget's career. A first period (1920s to early 1930s) focused on questions of child mentality and the gradual socialization of thought during which the methods used were observations and the early, verbal, forms of clinical interview (steps 1–3 in Table 1). The second period (mid-1930s and 1945) concerned the beginnings of knowledge, and relied largely on a return to observational methods (step 4 in Table 1), while the third period (end of the 1930s to the end of the 1950s) focused on the structural analysis of the formation of the categories of thought and utilized the clinical interview in its mature form (step 5 in Table 1). Piaget's later works on the primacy of operatory structures and general developmental mechanisms did not introduce any new methodological elements into his research.

**TABLE 1**  
**The development of Piaget's research methods**

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1.	Observation <i>The Language and Thought of the Child</i> (1923/1926) <i>Judgement and Reasoning in the Child</i> (1924/1928)
2.	First 'clinical' interviews (verbal) <i>The Child's Conception of the World</i> (1926/1929) <i>The Child's Conception of Physical Causality</i> (1927/1930)
3.	Participant observation and clinical interview <i>The Moral Judgement of the Child</i> (1932/1932)
4.	Observations <i>The Origins of Intelligence in the Child</i> (1936/1952) <i>The Construction of Reality in the Child</i> (1937/1954) <i>Play, Dreams and Imitation</i> (1945/1951)
5.	Clinical interviews <i>Number</i> (1941/1952), <i>Time</i> (1946/1969), <i>Space</i> (1948/1956), <i>Logic</i> (1955/1964), etc.

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### 2.1. Observation

In these first works (to which he gave the collective title *Studies in Child Logic*) Piaget's method consisted of close observation of children in the classrooms of the school run by the Institut Jean-Jacques Rousseau. These careful transcriptions of children's speech and conversation were analysed both through linguistic categories (to address questions of the child's developing grasp of logic) and through a set of functional categories which attempted to analyse the changing character of children's communicative activities. As Ginsburg (1997), among others, has noted these functional categories owed much to the early influence of Freud and psychoanalysis on Piaget's own developmental scheme, although he characteristically forged his own structural description of a sequence of stages in children's communicative development running from an initial autistic stage, through a transitional period of egocentrism, to the sociocentrism achieved in middle childhood.

### 2.2. First "clinical" interviews (verbal)

As I noted earlier, while recognizing the strengths of pure observation as a technique, Piaget also came to realize its limitations.

In order to expand his investigations to consider a more systematic approach to children's developing representations of the world he began to use interviews focused on specific themes which reflected both something of what he had observed in children's spontaneous observations and his own emerging account of the categories employed by children in constructing their representations.

In describing his interviews as "clinical" Piaget drew on a model of the interview techniques employed in psychiatric assessment. Just as the psychiatrist used the interview to diagnose the condition of the patient, the child psychologist could employ an interview to "diagnose" the structure and pattern of children's mental life. To achieve this the child was presented with a problem and invited to respond, this response itself becoming the point of origin for a more extended conversation in which the child's thinking was systematically explored by the interviewer through questioning and cross-questioning. In this way the children became (unconscious) informants on their own mental life, and Piaget, as the interviewer, sought to gather as much information as possible through carefully crafted questions adapted to the productions of each individual child. Thus, while the themes and problems remained constant for all the children interviewed, the specific character of the conversation and the questions posed by the interviewer varied from child to child, with each interview taking concrete shape around the responses of the particular child.

Piaget was very aware of the problems and difficulties involved in interpreting such interview material, problems which he addressed in his introduction to *The Child's Conception of the World* (1926/1929), one of his most overtly methodologically focused chapters. Here he tried to classify children's contributions to these discussions by separating responses which were a direct product of the interviewer's influence on the child, or in which the child engaged only in romance or phantasy, from those responses which reflected the child's real convictions in the sense of their underlying beliefs about the world as they understood it and represented it. While such distinctions might be analytically clear in a theoretical sense, they are not always easy to apply in specific cases. And indeed there are many instances in the analytic chapters of these books where Piaget addresses just this question in discussing particular responses of individual children. This is obviously a key interpretive moment in such research studies, but its significance should not be



overestimated. One could challenge one or another of Piaget's judgements about whether a particular response was "romancing" by the child or whether it reflected a "liberated" or "spontaneous" conviction (and in general one can note that the extensive excerpts of the interviews given by Piaget in his written text provide the basis for doing so). However, the theoretical structure of the analyses of children's representations does not depend on such individual judgements, but rather on the coherence of Piaget's own system of categories for interpreting the interview material as a whole. There is, of course, a kind of limiting case here. If Piaget's judgements were *always* wrong, or systematically biased in some way, then this would indeed seem to challenge not so much the coherence of his interpretive categories, but their applicability to the material he had collected.

The categories which Piaget employed in his interpretation focused on general characterizations of children's representations in terms of realism, animism and artificialism. In each case he analysed children's development from some form of non-differentiation (broadly characteristic of the young child's egocentric thinking) to a more mature differentiation; between self and the external world in the case of realism, between animate and inanimate nature in the case of animism, and between human activity and natural causes in the case of artificialism (cf. the discussion in Chapman, 1988: 48–50). In establishing these categories, Piaget also drew on the work of Lévy-Bruhl (1926), suggesting a parallel between his account of the "participations" in the magical thinking of so-called primitives and the characteristics of young children's thinking. For Piaget, though, while the representations which he analysed in young children were no less constitutive of a specific mentality than they were for the French anthropologist, they also needed to be seen from a developmental point of view. Unlike the primitive, the child also went on to develop a different mentality which reflected the emergence of logical thinking and its systematic application. Thus while Piaget drew on Lévy-Bruhl's descriptions of primitive mentality, in his own analysis he set these forms of thought in a different context, so that his interpretations of the interview material he collected analysed children's thinking as developing through a series of structurally differentiated stages which led to the emergence of mature adult thought.



### 2.3. Participant observation and clinical interview

Piaget's work on *The Moral Judgement of the Child* (1932/1932) represents something of an intermediate stage in the development of the clinical interview. On the one hand it continues the general form established in the earlier works, but it also introduces some new elements into the method while not yet reaching the final form visible in the later stages. In fact the first of the studies reported in the book is where Piaget emerges most clearly as a true ethnographer of children's worlds through his use of participant observation. In this study he analysed children's developing grasp of the rules of the game by sitting down with small groups of boys and asking them to teach him to play marbles. The conversations which ensued were again punctuated by Piaget probing children's representations through carefully crafted questions which enabled him to produce separate analyses of children's knowledge of rules and of their practice in relation to rules. From the methodological point of view, the novel element in this study is the integration of observations of action within the context of the interview, so that what children do provides as much material for interpretation as what they say.

In the subsequent chapters of the book Piaget's further studies of other aspects of children's moral judgements also introduced new elements into his research technique. While he continued to employ the same kind of clinical interview, the stimulus material he employed was now no longer a simple question to the child as it had been in his studies of the representation of the world, but rather a dilemma presented to the child through short vignettes. In some ways this development can be seen as the extension of an element which was already present in the earlier interviews. In questioning the child about their representation of the world Piaget had always employed a form of counter-questioning in which he presented the child with a contrary case to their initial argument, a practice which helped to focus on the characteristics of children's thinking as it emerged in an active engagement with a problem rather than merely as a static reflection. Now, through the use of these vignettes, this procedure came to structure the form of the interview as a whole. In asking the child to consider whether a boy who broke one cup accidentally was naughtier than one who broke several cups while doing something he should not have been doing, Piaget could not only follow the twists and turns of children's thinking as they pondered the question, he could also intervene

through his own questions both to clarify what the child meant at any point and to introduce further aspects of the situation for them to consider.

While the interpretive categories which Piaget employed in analysing this material certainly introduced themes specific to the question of moral judgement, they remain within the general developmental framework which he had articulated in his earlier books. That is, they analyse the development of moral judgement from an early egocentric position to a later sociocentric position, but are not yet analysed in terms of the structural descriptions of operations which characterized Piaget's later work. Thus, while there are many reasons why this remains one of the most fruitful of Piaget's books, from the methodological point of view it presents a kind of transitional phase in the development of the clinical method.

#### *2.4. Observations*

Following his early work on the development of children's thinking, Piaget devoted considerable attention to his studies of sensorimotor development through infancy, and the transition to operatory forms of knowing. In studying infancy, of course, the verbal clinical interviews he had devised were not a feasible form of research strategy, and he returned to the use of observation as his principal technique. As is well known, the works on sensorimotor development drew on the observations made by Piaget and his wife on their own three children. However, in returning to observation as his technique Piaget also introduced into his work a more active element which makes a kind of parallel in these observational studies to the clinical interviews of his studies on children's thinking. While some of the observations he records are straightforward records of his children's activity, many of them are also records of interventions from Piaget or his wife. A re-arrangement of the things around the child would produce a new situation in which the child's reaction could be observed, and successive re-arrangements functioned in a similar way to the questioning of the clinical interview, testing out the limits of the child's developing coordinations at each stage. Thus, for example, the familiar instances of the children coming to search for a vanished object (Piaget, 1937/1954: Obs. 34–8, pp. 44–50) are all records of reactions to interventions of this type.

As well as illustrating the influence of the "clinical" method on his observational practice, these studies also indicate Piaget's continuing ethnographic engagement with his material. Again these observations are analysed in terms of the set of interpretational categories which Piaget introduced through his analysis of sensorimotor development, primarily in terms of action schemes and their various coordinations. Indeed, it may be that the absence of verbal elements from these studies of infant development helps to make the relation between observation and interpretation even clearer. When he arranged for a doll or a watch to disappear from the child's view, Piaget was interested in the child's reaction to this disappearance, and the point where the children began an active search for the disappeared object marked an important moment in their development. But Piaget does not simply record this as an objective feature of the child's activity, rather these reactions are interpreted in terms of his general theory of sensorimotor development. The infant who loses interest in a disappeared object has not yet developed the coordination of schemes which would allow them to search for it. What Piaget described as the "object concept" has not yet begun to emerge in the child. In this way the data furnished by observation are rendered intelligible through interpretation. Or one could say that these observations only become data through being interpreted.

### 2.5. *Clinical interviews*

Following his studies of sensorimotor development Piaget returned to the study of intellectual development in early and middle childhood (and later into adolescence as well), but he did so using both a revised theory and a revised method. The revised theory became what can be considered as most characteristically Piagetian, since it considers intellectual functioning from the perspective of operations, and describes intellectual development in terms of a sequence of stages, from the pre-operational through the development of concrete operations to the final emergence of formal operations in adolescence. The first fruit of this work was his study with Alina Szeminska of *The Child's Conception of Number* (1941/1952),<sup>1</sup> but this was closely followed by Piaget's own presentations of the logic of operations (1942, 1949). The revised method extended the

earlier form of the clinical interview by structuring it entirely around practical problems.

In his *Foreword* to the book Piaget (1941/1952) explains the reasons for adapting the clinical method in this way. The earlier work had considered the child's verbal and conceptual constructions, but the aim of this work (and the series of works of which it formed the first instalment) was to go beyond the purely verbal forms of reasoning to the analysis of underlying structures, or as Piaget puts it the aim was to "trace the development of the operations which give rise to number . . . operations which . . . lead from intuitive and egocentric pre-logic to rational co-ordination that is both deductive and inductive" (1941/1952: vii). He goes on to say that while he intends to continue to use the procedure of "free conversation" with the child, "our investigation of sensory-motor intelligence has, however, shown us the necessity for actual manipulation of objects" (1941/1952: vii). Thus the final form of the clinical interview incorporates aspects of the innovations in observational procedures prompted by earlier forms of the clinical interview.

With these works Piaget arrived at a research procedure which he retained throughout the remaining course of his active career which lasted until his death in 1980. In these studies the child is first presented with a practical problem, and when they have given an answer they are asked to give a justification for it. Subsequently, the interviewer starts to offer counter-arguments to the child, and frequently to re-arrange the physical material to produce new forms of the problem. Throughout this conversation the interviewer is always responding to the child's answers, questioning them, seeking justifications, presenting counter-arguments. At each step the interviewer's intervention is guided by the child's thought and action, so that the interviewer really has to frame a hypothesis as to what the child means by what they say and do, and then frame their next intervention in terms of this hypothesis. Thus, as in the earlier forms of the clinical interview, the conversation with each child takes its own individual course, although the corpus of interviews is thematically coherent since they all relate to the same problem. The advance in this revised method is that the child is no longer, as Piaget puts it, "thinking in the void" but rather "talking about actions he [sic] has just performed" (1941/1952: vii).

All these elements can be seen in a very familiar example, the problem of the conservation of the amount of water, which appears

**TABLE 2**  
**Chapter 1 – Conservation of continuous quantities**

	<i>English edition</i>	<i>French edition</i>
Introduction	pp. 3–4	pp. 16–17
§1 Technique and general results	pp. 4–5	pp. 17–19
§2 Stage I: Absence of conservation	pp. 5–13	pp. 19–28
§3 Stage II: Intermediary reactions	pp. 13–17	pp. 28–33
§4 Stage III: Necessary conservation	pp. 17–24	pp. 33–42

as Chapter 1 ("The Conservation of Continuous Quantities") of the book on number (1941/1952). While there is not space in this article to analyse this example in detail, some significant points can be noted not only in relation to the method used but also about the narrative style through which Piaget presents his work to the reader. The chapter is divided into sections and this general scheme is presented in Table 2, where page numbers are given for both the English and (7th) French editions.

The introduction serves to locate the problem under study and to present a hypothesis to be examined about the relation between arithmetical notions and psychological structures. As Piaget makes clear (p. 4) his study aims to demonstrate that arithmetical notions acquire their structure because of the emergence of conservation, so that from the outset the reader is led along a particular path. This pathway is then reinforced in the following section which has the intriguing title "Technique and General Results", where he not only describes the general form of the problem presented to the children and the nature of the interview, but also gives a first overview of his findings in terms of broad descriptions of the developmental levels he found (a form of research reporting which, one suspects, few contemporary journal editors would allow their authors to adopt). These levels are then analysed in some detail in the following three sections through the presentation and discussion of many examples of interview protocols. In these discussions Piaget is concerned to demonstrate why specific forms of answers can be allocated to particular stages in the development of conservation. The most extended of these discussions is the final section, where children's responses are analysed in terms of the logic of groupings through which Piaget defined the structure of concrete operations (it is this section which has been curtailed in the English edition).

From a methodological point of view it is important to note the role of justification and counter-argument in these interviews. As in his earlier work Piaget is above all concerned to analyse the child's convictions about the problem, which come through most powerfully when the child resists suggestions which come from the adult interviewer. It is through this resistance that a sense of the structure and organization at each level of children's development emerges most clearly (cf. Duveen, 2000). This is apparent even among the younger children, who are convinced that the amount of water is not conserved across various transformations, and they too resist the adult's attempt to suggest otherwise. Among the older, conserving, children this resistance to counter-argument is also an important marker of their grasp of the logical necessity of conservation which for Piaget is a key criterion for the identification of this stage.

In this study (and the countless other examples to be found in his research) one can see Piaget actively striving to present a persuasive case that his interpretive categories (here the concepts of operations and their structure) are not only adequate for grasping the empirical material generated by the interview, but also the most economical way of accounting for the totality of the data by providing a developmental scheme in which each stage can be identified and defined. Persuasion, of course, implies that this research report needs to be considered as part of a dialogue, and one can in fact identify different levels of dialogue with different interlocutors at work in this text. The interview material itself consists of dialogues with children, but there are also multiple dialogues present in the report. First of all there is Piaget's own internal dialogue, which itself can be seen as operating at two levels, first in the engagement of his interpretive scheme with the interview material and second in his own attempt to persuade himself of the adequacy of his interpretation. Then, of course, the report itself can be read as a persuasive dialogue with the reader.

### **3. Ethnographic engagements and disengagements**

I have suggested that Piaget's research can be seen as ethnographic because of the open dialogue it sustains between empirical material and interpretive categories, a dialogue which certainly enables him to offer a "thick description" of the development of children's thinking

in terms of different levels of structural organization. Thus Piaget's research method follows what we can describe as an ethnographic logic, and what this means can be appreciated more clearly by contrasting Piaget's research method with those employed by some of his critics (a different but related attempt to describe contrasting logics of research has been given by Basil Bernstein [1996] in terms of the different languages of description at work in the research process).

In the 1970s and 1980s a number of research studies appeared which purported to demonstrate significant weaknesses in Piaget's work (Donaldson [1978] is a notable example, and a good overview and analysis of such studies are given by Wood [1988]). Common to these studies was the suggestion that Piaget had seriously underestimated the intellectual competence of young children (i.e. those he had described as pre-operational) and that he had done so as a consequence of his research methods. Various aspects of his clinical interviews were held to be at fault. Donaldson (1978), for example, suggested that the problems he presented to children were too abstract and failed to make "human sense" to the child, so she and her colleagues sought to reframe these problems in forms which they considered to be more accessible to children. Others, such as Rose and Blank (1974), suggested that the nature of the interview itself incorporated forms of dialogue which introduced a systematic bias in the results. Collectively these studies presented a body of evidence which was held to demonstrate that children were capable of engaging in the forms of thought which Piaget attributed to middle childhood at much earlier ages.

It is not my intention here to review the weaknesses of these studies as critiques of Piagetian research. Others (e.g. Gold, 1987; Wood, 1988) have pointed out how, in the process of "revising" the tasks, these studies have generally also significantly changed the problem presented to children. What concerns me here, however, is the logic of research at work in these critical studies which have generally been framed as experimental studies. However, they also differ from Piaget's work in a crucial respect. In these critical studies children are presented with a problem (in carefully controlled experimental settings) and asked for a solution. There is not, however, any attempt to pursue the conversation with the child any further, they are not asked to give any justification for their answer, nor are they exposed to any counter-argument from the interviewer. In short these studies operate with a method which is far removed



from that of Piaget's clinical interview, and as Leslie Smith (1992) has argued, this difference carries important consequences since the inferences which a researcher can make on the basis of children's judgements alone are different from those which can be made on the basis of more extended interviews. Donaldson (1978) herself has argued that one should not engage the child in this kind of argument, since young children are not capable of explicating their own thought processes. Thus for her it is the child's judgement alone which is a reliable source of data.

The difference between Piaget and his critics is not merely one of style nor simply an argument over the precise age at which children become capable of employing particular forms of thought (and in any case, age itself was never taken as an independent index of development by Piaget). Rather, this difference relates to conflicting logics of research. I described above how the dialogue of the clinical interview is central to Piaget's research method. Within this dialogue the interviewer is always attempting to grasp and understand the child's comprehension of the situation. Interpretation by the interviewer and the exploration of that interpretation through further conversation is at the heart of the clinical interview, which is itself embedded within a broader interpretive framework.

For the critical studies the research situation is constructed rather differently. Here the child is presented with a problem and asked for a judgement, and it is assumed that the meaning of this judgement can be interpreted directly from the logic of the experimental situation itself. If the child says "the same" it is assumed that they have understood that something has been conserved, if they say "different" conservation is denied. A great deal of ingenuity has been expended in constructing different experimental situations which can generate more "same" judgements at earlier ages. The contrast with Piaget is very stark. For him the child's initial response is only a beginning. If they say there is the same amount this is the point of departure for a conversation about what they mean by "the same"; and it is clear from the protocols he presents that children's initial judgements are often modified and changed through the course of the interview itself. But this fluidity in children's thinking and the conversation in which it is embedded are central to his method, which is concerned with identifying the underlying structures which organize children's thinking.

We can summarize these contrasting logics of research in the following way. Piaget's clinical interview adopts an open position

about how the child understands a problem, which provides a space for the interviewer to interpret the child's responses as well as a space for a dialogue with the child. This material is then further interpreted by Piaget in his analysis of the interviews as a whole. Consequently his logic consists of a dialectic between material and its interpretation. For his critics the situation is rather a closed one in which the meaning of the child's response is immediately given by the structure of the experimental design or setting itself. In this position the "data" are always an objective and unmediated feature of the experiment itself. Such experimental logic derives from a positivist view of scientific research, and one can see in these studies precisely that fetishism of data which is such a characteristic of scientific positivism and which marks a disengagement from ethnographic concerns.

This contrast provides a fitting point at which to conclude this article. While it may have seemed strange at the outset to consider Piaget as an ethnographer of children's development, I hope to have been successful in suggesting that he can indeed be seen in this light on the basis of an analysis of the logic of his research method. Further, taken as a whole his work can be viewed as an important contribution to current debates about qualitative methods, providing as it does such a clear example of how interpretive methods can lead to powerful theoretical models.

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## Note

1. The English edition of this text suffers from some significant deletions of portions of the French original. While the translator notes that "with the author's permission . . . we have omitted the logistic algorithm introduced by the author in Chapters III and X" (p. ix) in fact the omissions are more extensive than this. Almost every chapter of the French original concludes with a section where the

research study reported in the chapter is interpreted in terms of the logic of operations, and little of this interpretation remains in the English text. It is not clear why these deletions were made, and at this distance of time almost impossible to trace. Certainly the Archives Jean Piaget in Geneva hold no correspondence on this matter. The most likely explanation is an economic one, that the publishers wished to shorten the length of the text.

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(N.B. Where two dates are given in a reference the first is that of the original French publication, the second that of the English translation.)

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