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# CHAPTER 10

# THE SOCIO-INTELLECTUAL GENEALOGY OF JEAN PIAGET

## SCIENTIFIC OPENINGS AND DISCUSSIONS

What was the historic context at the heart of which Jean Piaget's thought emerged? The first part of this work aims at sketching a view of Neuchâtel at the beginning of the 20th century in order to give an idea of Piaget's family background, his school milieu, and his friends and masters who would become his interlocutors in science well as in philosophy. In the second part, we will address the intellectual context of his century in order to understand how Jean Piaget fits into the extraordinary scientific blossoming, which, in the second half of the century, extended beyond his native city and country to embrace France, Belgium, Germany, Austria, and later, beyond his linguistic range to the whole of Europe and to North America. Piaget was able to make extensive contacts throughout the world owing to his university life and his personal travels. Correspondence, congresses, and lecturing opened the path for ideas to circulate which then instigated challenge and debate. Piaget actively participated in such events by adding his observations and analyses and thus contributed to reformulating certain questions and to ignoring others.

We shall accompany Piaget on this intellectual journey in order to outline the history of the human sciences from the beginning of the last century. The 'Piagetian' persona, including its reception and its effect, will thus emerge from the path he made first in Switzerland and then

elsewhere. Distance allows us to put some of his choices into perspective and even to probe their sources: where did his radical distrust of the socio-historic stem from or his search for the universal and his occupation with logic as a precious (quasi-divine) ethical source? How did he relate to authority?

In the present chapter, we shall lay a kind of bridge between the two parts of this work. First, there are the professors who occupied one after the other the chair of psychology[1] at the University of Neuchâtel; then there are the predominant areas of research in Neuchâtel and other French-speaking parts of Switzerland. This gives us an understanding of where Piaget fits in a particular intellectual genealogy, which, in spite of the rigor in the Piagetian subject, had further ramifications in the field of science. This passage from the specificity of the Neuchâtel influence to the richness of an era will introduce the subject matter of the second part of this work: the diverse aspects of the larger question of the role of Jean Piaget, the learned scholar, in his century.

The following brief, intellectual history, which places Piaget among the heirs of his time, is not a defence of socio-cultural determinism. Rather, it is a picture of how intellectuals from Neuchâtel, whether they were partners, collaborators, or successors, were for a while at least, taken up with the same questions and then how they went on to study domains Piaget would forsake. Areas of common interest reveal three converging points that give an epistemological coherence to this genealogy.

## SCIENCE, RELIGION, PHILOSOPHY, AND COMMITMENT

At the end of the 19th century, when Piaget was born, the recently united Swiss Confederation lent a strong coherence to the Canton of Neuchâtel, which eagerly sought out its European neighbours and participated in the economic and cultural boom of the period. These circumstances gave students the opportunity to benefit from a broad freedom of thought, encouraged by the tradition of complementary studies in the great university cities throughout Europe. In effect, it was customary to spend six months or a year studying with a 'mentor': Sigmund Freud, for example, was a pupil of Jean Martin Charcot, and Carl Jung one of Pierre Janet's. Such internships were a part of life for Piaget's contemporaries, a fact which in itself lent coherence to scientific and philosophical work being done by a diverse range of European intellectuals. On a different level, Maurice de Tribolet[2] has already shown how the multifarious activities of Piaget's family, who had not been only intellectual and militant in their scientific commitment but also politically and religiously minded, were representative of this openness.

Such was the context in which Pierre Bovet became professor of psychology, philosophy, and pedagogy at the Academy of Neuchâtel. A leader in local affairs, he founded, while still an adolescent, the Club of the Friends of Nature; some years later, he translated the writings of Baden Powell, founder of the Scouts, and contributed to introducing the Scouts to Switzerland. Bovet was also active in developing the religious centre at Grandchamp, still known today for its work and for its openness to inter-confessional dialogue. Bovet wrote a work on the origins of religious feelings in children[3], which brought together his three areas of interest. Such spiritual, scholarly, and social commitment characterized several generations of the university community in Neuchâtel, which was the first meeting point of intellectual activity in the region. Piaget was too young to be a student of Bovet's; but both the Club of the Friends of Nature[4] (which kept him in touch with Bovet) and his participation in Christian movements provided the starting point for his queries. His activities as a naturalist and his exposure to the philosophy

of Henri Bergson in 1912 led to his writing his first texts, which predated *Biologie et connaissance*,[5] and which were seen by teachers and peers alike as having a clearly mystical-metaphysical slant.[6]

Arnold Reymond, who had already been Jean Piaget's teacher at grammar school, held the chair of philosophy and psychology after Pierre Bovet at the University of Neuchâtel (1912-1925), where his former pupil would become his student. Reymond had acquired a strong scientific training by travelling to Berlin, London, and Paris, where he studied physics and philosophy under the tutelage of Emile Boutroux and Bergson. Later, Reymond played a role in introducing a new approach to logic[7] at the university. Apart from his work as a historian of science, Reymond pursued two important, parallel approaches: one religious and the other philosophical.[8] He took part in discussing such French thinkers as Léon Brunschvicg and André Lalande. In this post-Kantian period, Reymond developed a major theory of judgement - a weighty matter in the Kantian structure. The principal idea is that the act of judgement is itself neither True nor False, but is first of all determined by a particular 'view of reality' among other coherent views of reality, and before which the mind adopts a particular position that is part of a rational system of subjective positions. This idea led to the notions of the relativity of judgement and of the diversity of points of view about the world. Such notions were instrumental in breaking through certain dogmatisms and in recognizing the relativity of science. Piaget would take up this idea in psychology. Although Reymond considered him as 'one of his illustrious students', Piaget had to overcome his reticence before this rigorous professor - which was hardly compatible with a juvenile fascination for Bergson - before recognizing, in 1942, the major role Reymond had on French-Swiss thinking.[9] Having, on one hand, 'lived profoundly the different movements of modern thought', Reymond become a 'conciliator', rigorously distinguishing 'values of faith of speculative theology' and subjecting

those values to a rational critique. On the other hand, he examined the connections between the exact sciences and reason, mathematics, and logic. Piaget adds, Reymond 'had profoundly influenced us and was thus the vital centre for our society (Société romande de philosophie), whether we were theologians, moralists, logicians, historians or psychologists'. In fact, it was with scientific rigor at the beginning of the last century that Reymond made his way in Neuchâtel, where the logico-psychological connection had a lasting influence on subsequent work.

Beyond the problem of faith and reason, Reymond inspired Piaget's interest in logic and the philosophy of Brunschvicg, whose philosophical ideas, Piaget had studied for two years in Paris, would later underlie own system of thought. After studying in Paris and in Zürich, and concomitant to his appointment at the Jean-Jacques Rousseau Institute in Geneva, Piaget succeeded Reymond at the University of Neuchâtel, where he taught psychology, the philosophy of sciences, and soon thereafter sociology [10](1925-1929).

However, Piaget was not Bovet and Reymond's only student. Jean de La Harpe, who held the chair of philosophy and psychology after Piaget, had also been their student. After rigorous studies with Lalande, Meyerson, and Brunschvicg, Jean de La Harpe worked at the same time as Piaget, sometimes collaborating and sometimes opposing him on such matters as religious sentiment, post-critical philosophy, and the genetic perspective of epistemology. One is thus not surprised to find in their writings implicit or explicit references to the philosophy of Brunschvicg, the anthropology of Lucien Lévy-Bruhl, the sociology of Emile Durkheim, and the psychology of Janet – of the importance of the social milieu on the development of relations between phylogenesis and ontogenesis.

## THE PROBLEMATIC OF TIME

The second point of convergence in the intellectual life around Neuchâtel can be seen in particular in La Harpe's years (after 1930) spent teaching, publishing, and finally producing a thesis on the subject of time. Titled *Genèse et mesure du temps* (1941)[11], this thesis of philosophical interest drew support for its arguments, on one hand, from Janet's work in psychology and, on the other hand, from sociology. It added, not without humour, common sense to this temporal problem: a nomadic hunter's relation to time is different from that of an inhabitant's in a watch-making region. This thesis, beyond its critical aspect, well illustrated the confluence of approaches mentioned above. The first half of the thesis, which is from a resolutely genetic perspective, locates the origin of the sensation of time in the child's sensorimotor behaviour. This sensation integrates first the notion of habit and thus memory, then the notion of waiting and thus 'prospective memory', i.e., the future. When the subject adds imagination to that future, a 'mythical' time is created, in the sense described by early oriental civilizations. With language, time becomes the object and the structure of the narrative. Finally, owing to the need for consensus that socialization requires, time is then something to be measured. What had originally been a 'need to agree among priests' became measured time and led to the emergence of metrics. Time passed from an unconscious sense of continuity to a conscious measure. The second part of this thesis deals with the formal articulation of metric time and from that to objectivity in logical language. La Harpe reflected on the connection between time lived, its existential profundity, and formal time.

There are two reasons for presenting this thesis here. On the one hand, this thesis, which appeared after Piaget's early work on the child's conception of the world (1926)[12] but before *The Child's Conception of Time* (1941)[13] - work made possible by the theoretical clarification

given by La Harpe? - is an example of the contact between Neuchâtel researchers and interdisciplinary collaboration, as well as of the common ground of theoretical presuppositions of the period. On the other hand, La Harpe's thesis led to other works on the subject of time. In fact, the mathematician and logician Jean-Blaise Grize, who was a student both of Jean La Harpe and of Piaget, as well as a brilliant collaborator, wrote a thesis on science, at La Harpe's suggestion, that was also on this subject. Grize's work laid the premises of a vigorous intellectual movement to which we shall return later. The starting point of this thesis, *Essai sur le rôle du temps en analyse mathématique classique,*[14] is the irrepressible appearance of 'common' language in any attempt at mathematical formulation. From there Grize proceeds to first examine the significance of this irruption and then the suppression of notions referring to time in mathematical analysis. One discovers, thereby, that natural, or common, language generally slips temporal images into abstract scientific discourse when a formal framework reaches its limits. This presence of common language proves that formal language fails to sufficiently describe reality, and it makes evident the consequent need for conceptual reformulation. From this a more powerful system emerges, which is to say that science progresses. Scientists then try to eliminate this embarrassing temporal dimension and the natural language that translates it. On the one hand, this thesis demonstrates the significant presence of register in a certain language (here, formal versus informal) for a 'given state of civilization'; and on the other hand, it sets the requirement for a non-bivalent logic, which can be expressed in a language explicitly able to find a place for temporal elements, which are present in any reflection.[15]

## INTRODUCING SOCIO-CULTURAL TIME TO THE THEORETICAL

After this thesis, Jean-Blaise Grize, who contributed for a long time to Piaget's work (particularly to the second edition of *Traité de logique*[16] and to the studies of genetic epistemology), continued his own research, examining areas that Piaget had chosen - from lack of interest? - to lay aside. Grize developed logic and semiological studies, 'in order to found a true science of man in society'.[17] From the beginning his questioning the limits of a form of logic exposed how everyday language was an irreducible part of all formal language. Grize laid out the basis of a 'natural logic' that analyzed the logico-discursive acts operating in all language production, not only mathematical, a privileged domain in Piagetian studies, but also in ordinary and non-formal language. Beyond initial observations about 'shared meaning' and awareness of the creative aspect of the subject in articulating and communicating in context - the manner by which one reasons 'daily' - lies the whole problem of the social dimension and its meaning, which became the researchers' concern.

In order to continue his work, Jean-Blaise Grize, who was later rector of the University of Neuchâtel, founded the Centre for Semiological Research in Neuchâtel in 1969. The founding postulate for the Centre was 'one never reasons about things themselves, but about the signs that replace them; and one never communicates without signs'.[18] This well-known theory of semiotics had its place in discussions led by figures such as Umberto Eco and Julia Kristeva, though it clearly distanced itself from their semiological theories. Besides the obvious interest of semiology in studies of speech acts, logic, and psychology, a remark made by a sociologist reveals a further application. In the mid-1960s, when sociology faded with the collapse of social structures, 'natural logic' offered a new basis for the realities of the time and an adaptation to the new social dynamic.[19] The integration of the societal at the level of the theoretical marks the third point where the intellectual activity of the Neuchâtel region merged. A quick look at history shows that the historian, Arthur Piaget, Jean's father, had led the way,

in spite of resistance, in requiring a historical critique of history - one owns the history that one reads; yet, Jean Piaget left out the 'socio-critical' dimension in his own work. It is true that history, or more precisely a temporal course, was not completely forsaken in his work. The historical dimension can be seen in his work on the history of ontogenesis, where Piaget - 'historically critical' in his way - showed that the child always thinks within the limits of his ability to reason governed by the stage of development that he has reached. However, this interpretation owes more to Kant than to a historical perspective, ignoring as it does the impact of the time of social history on the subject. While it is true that as a young man Piaget had been sensitive to the historical events of his time, his socio-political and Christian-associated engagements in the aftermath of the First World War were relegated to the backburner by the time he was launching himself into research on fundamental clinical psychology. From then on, the historical social was supplanted by the goal - as if it were contradictory - to find the universal processes of thought.[20] In spite of this turn, two other researchers who succeeded Piaget explicitly integrated contemporary history into their theoretical reflections.

Philippe Muller, who was appointed to the chair of philosophy and psychology after Jean La Harpe at the University of Neuchâtel (1954-1973), was trained both in philosophy and psychology. He also reflected on the relation between religion and philosophical thought. Nevertheless, from 1933 to the time before to the Second World War, Muller was not concerned enough with the limits of his predecessor's theory to take into account the subject's cognitive operation in making sense of his surroundings. He deplored the hiatus that separated 'man assured by a certain type of knowledge coming from the sciences' (such as Piaget, logicians, and philosophers) from 'universal man who is thrown into disarray by current circumstances'.[21] In effect, the tensions and conflicts that tore apart Europe in the first half of the 20th century affected students even without the historical and existential dimensions actually being part of

scientific research itself. Muller himself could no longer separate science and conscience from those events, and his initial thesis led to the point of view that Max Scheler encapsulated: 'For the first time in history, man no longer knows who he is. And worse, he knows that he does not know it.'[22] Thus, with a rigorous training in Anglo-Saxon experimental psychology on one hand and on the other in French existential philosophy, Muller's work sought to integrate the contemporary problematic into his theoretical reflections. From the 1940s to the 1970s, apart from his major political and social commitments, Muller wrote a work on industrial psychology, subject matter that treated the situations that were one's daily struggle in the contemporary world, child development, and in particular, the psychology of modern man. This psychology needed to address socio-cultural and anthropological factors.[23] His publications, widely translated (even into Japanese), found an international readership. Besides his philosophical and psychological engagements, his research on the psychology of work led to the creation of two university chairs in the subject at the faculty of economics and sociology. These university posts fostered active involvement in contemporary problems, which was faithful to Muller's desire to integrate the existential dimension into theory.

We have tried to set forth here the university's 'fathers of thought' who influenced Piaget and others like him. Against the socio-economic and political background of the era, we have been able to trace ways of thinking that ran parallel to Piaget's, used him as a source, and then often diverged.

## INTELLECTUAL DYNAMICS AND RUPTURES

The second part of this work starts off with the seething intellectual spirit that characterized Europe at the time. Piaget grew up amid this intellectual, European climate, which helps

account for the role his native Neuchâtel played in fostering the development of the lively, curious intelligence that characterized the researcher he became. The historical and social tensions of the period were reflected in theoretical discussions and in social science research. Like the political turbulence of the day, Piaget's own course of development underwent various ruptures, some of which will be examined in the following chapters.

On a local level we can see that the same background, without being deterministic, led to different ideas that while they may lie outside the Piagetian scope, nevertheless have an importance to this study. We have already seen how the young science of semiology, among others, followed in the wake of Piaget's own work.

But what has been the intellectual reception worldwide? How has the intellectual climate developed since the beginning of the last century? In the next chapter John Rijsman presents the *Zeitgeist* of an era filled with hope in the galloping progress of science. Frequent contacts between European intellectuals, from a largely common humanist and scientific background of shared tensions and contradictions, formed a platform for exchange and for extensive dissemination, which led to the re-emergence of philosophical and theological questions. The century, however, was also jolted by the worst wars and by the aftermath of decolonization; a time when strategies of power were transformed and iron curtains raised.

The connections between the young Piaget and Russian psychology are perhaps exemplary, on the intellectual level, of certain tensions of this period. In fact, when Piaget was still young, the nascent discipline of psychology - which some attribute to Wundt in Leipzig, and others to Freud in Vienna, or even to the milieu of pedagogy with Decroly, Montessori, and Claparède - was also enjoying a dynamic debut in Russia. Researchers and students mixed and discussed

the same authors. The young Piaget was quickly recognized and published in Russian by his contemporary, Lev Vygotsky. In his contribution, René van der Veer retraces the ideological and political circumstances in which Piaget's work was read and criticized in Moscow. The differences with the 'bourgeois' Swiss author that Soviet psychology loudly and frequently espoused badly disguised the Russian readers' infatuation with Piaget's work and its impact on their own research. There was without doubt a polemic, but beyond it there were also fundamental questions about psychology remain today. These questions concern the conditions of cultural transmission, the role of the interlocutor in developing thought, and the functions of language and of semiotic tools. Why did Piaget seem to duck this challenge and not reply to the Soviet criticisms that he knew existed? Did these criticisms touch deeply on fundamental points in his own system? Did he fear a censor of his ideas, which would then be distortedly circulated? Or was it rather a matter of Piaget taking a political and ideological stance against Communist Russia, refusing to enter into intellectual contact with potential enemies (but are intellectuals such enemies?[24]) of his ethical and democratic positions? In a Piagetian perspective, true science is possible only between people who share intellectual positions that respect the democratic principle of equality and horizontal reciprocity, which a dictatorial regime perverts. This was the beginning of the European divide that the Iron Curtain would exploit… It is striking to see today the pertinence of these questions at the heart of the discussions opened by the new configuration of contacts between East and West. The preparations for the centenary celebrations for both Piaget and Vygotsky in 1996 (in Switzerland and Russia, as well as in Great Britain, in Portugal, at the major meeting of the International Society for the Study of Behavioural Development in Canada, in Paris, and elsewhere) demonstrated this point.

Another interesting breakthrough is that of the relations between human sciences founded on the basis of education. Jürgen Oelkers writes of the pedagogical movements that reflected the

energetic initiatives and discussions in the field of education. State recognition of the growing importance of education at the turn of the last century is of particular interest. Ideas of man, God, and society challenged each other. Durkheim, professor of pedagogy, founded a flourishing school of sociology; paediatrics developed; Freud located the origins of mental problems in childhood education; and the respective roles of nature, the state, the church, and even of faith in children's education were discussed. These movements affected Piaget: he benefited from them in his own education; he found his first employment with Bovet and Claparède at the Jean-Jacques Rousseau Institute in Geneva; and to a certain degree, he even became the emblem of these movements. But Piaget always refused to let himself be labelled a pedagogue (even if the *Petit Larousse* identified him for a long time as 'Swiss pedagogue') and showed a certain disdain for educational practices, particularly the activity of school teaching, which was never sufficiently noble in its execution to reach the level of epistemology. We shall see how Piaget distanced himself from some of his own masters' positions in this regard and how he sought to learn about the child outside the pedagogical domains - while nevertheless being known as the first director of the International Bureau of Education.

Piaget seemed to advance imperturbably in the midst of the unrest he stirred up. It is interesting to see the different 'images' of Piaget by Daniel Hameline in his chapter below. Our hero is a person who did not allow himself to be easily categorized; he even saw to it that such could not be done. Since his adolescence, he reflected (meta-reflected on himself!) on the mission he was undertaking, on the meaning of his system, on the importance of his work, all the while contributing to the maintenance of a faithful self-image.

Let these texts contribute not to an abstract image, but to the rediscovery of the richness of a human being with an unmistakable magnetism! The reader will find here not only a challenge

to his moral and psychical strengths but also an invitation to take a fresh look at some fundamental questions.

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NOTES

[1] More precisely this chair of philosophy was responsible for teaching psychology. The title of this chair had changed and included, on occasion explicitly, besides philosophy, logic, the history of sciences and psychology. Psychology chairs, strictly speaking, did not appear as such at the University of Neuchâtel until the 1970s.

[2] In the present work.

[3] P. Bovet, *Le sentiment religieux et la psychologie de l'enfant,* Neuchâtel, Delachaux & Niestlé, 1925.

[4] See Vidal and Perret-Clermont in the present work.

[5] J. Piaget, *Biologie et connaissance,* Paris, Gallimard, 1967. [English translation: *Biology and Knowledge: an Essay on the Relations Between Organic Regulations and Cognitive Processes*. Chicago, London, The University of Chicago Press, 1971.]

[6] See also F. Vidal, *Piaget Neuchâtelois,* Neuchâtel, Bibliothèque publique et universitaire, 1996.

[7] A. Reymond, *Les principes de la logique et la critique contemporaine,* Paris, Boivin, 1932.

[8] A. Virieux-Reymond, R. Blanché, G. Widmer and F. Brunner, *Arnold Reymond,* Torino, Ed. de "Filosofia", 1956.

[9] J. Piaget, 'Note complémentaire à "Questions historiques" ', in A. Reymond, *Philosophie spiritualiste,* Lausanne, F. Rouge, and Paris, J. Vrin, 1942.

[10] See Liengme Bessire and Béguelin in the present work.

[11] J. de La Harpe, *Genèse et mesure du temps,* Neuchâtel, Secrétariat de l'Université, 1941.

[12] J. Piaget, *La représentation du monde chez l'enfant*, Paris, Alcan, 1926 [English Translation: *The Child's Conception of the World*, London, Routledge & Kegan Paul, 1929].

[13] J. Piaget, *Le développement de la notion de temps chez l'enfant,* Paris, Presses Universitaires de France, 1946. [English translation: *The Child's Conception of Time,* London, Routledge & Kegan Paul, 1969.]

[14] J.-B. Grize, *Essai sur le rôle du temps en analyse mathématique classique,* Neuchâtel, Impr. nouvelle L.-A. Monnier, 1954.

[15] For more information on these lines of thought, see A.N. Perret-Clermont (Ed.) et al. (). Thinking Time. A Multidisciplinary Perspective on Time. Cambridge [MA], Hogrefe, 2005.

[16] J. Piaget, *Essai de logique opératoire,* Paris, Dunod, 1972 (2nd revised and completed edition of *Traité de logique* by Jean Piaget, 1949, arranged by Jean-Blaise Grize).

[17] A step which, according to Busino, can be praised as the result of 'probably the most profound, innovative and original work that a French Swiss university has developed owing to the exceptional greatness of Jean Piaget'. G. Busino, 'Préface', in J.-B. Grize, *De la logique à l'argumentation,* Geneva, Droz, 1982.

[18] J.-B. Grize (1992) cited by Miéville in D. Miéville (ed.), *Approches sémiologiques dans les sciences humaines,* Lausanne, Payot, 1993.

[19] Busino, op. cit.

[20] This is all the more striking due to the fact that Jean Piaget taught sociology and expressed his opinions on this matter (see also J. Piaget, *Etudes sociologiques*, Geneva and Paris, Droz 1965 (3rd ed. 1977): but he never referred to the two problems!

[21] See Philippe Muller's discussion of this matter in his work *Options philosophiques,* Lausanne, L'Age d'homme, 1976.

[22] Muller, op.cit.

[23] See particularly: Ph. Muller, *La psychologie dans le monde moderne,* Brussels, Ch. Dessart, 1974.

[24] For a description of the Soviet situation of psychology, see for example: D. Joravsky, 'L.S.Vygotskii: the muffled deity of Soviet psychology', in M.G. Ash & W.R. Woodward (eds.), *Psychology in Twentieth-Century Thought and Society,* New York, Cambridge University Press, 1987, pp. 89-211.

[25] Tania Zittoun is the author of the part of this chapter that deals with the intellectual genealogy of Neuchâtel and Jean Piaget.