The Seer and the Scientist

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Scrutiny

In the course of my research on the history of Waldorf schools in the United States, many people with whom I spoke, admissions directors and teachers among them, casually compared Rudolf Steiner's ideas on the development of children in stages with the developmental research of Jean Piaget. My initial reactions were that this comparison must be meant allegorically and that it wouldn't bear scrutiny. Steiner's and Piaget's reputations were simply too dissimilar; what could the seer and the scientist have in common? The intention, it seemed, was to lend Piaget's weight as a scientist to Steiner's less familiar reputation as an educator. Comparing the two has not changed my suspicions regarding the intentions behind the comparison, but it has thrown some light on the intersection of, for education, arguably the two most important developmentalists of the 20th Century. The ways in which Steiner's and Piaget's ideas on child development are similar, and dissimilar, were not what I had expected.

Piaget on Education

Ignoring the many inferences regarding education that may be drawn from Piaget's research, he wrote surprisingly little on education. In only one essay, begun in 1935 and completed in 1965, does he examine education in general, including the application of his research to education. The essay is a curious hodge-podge of explanation, correction, and opinion. Called "Science of Education and the Psychology of the Child" (1935 and 1965), it begins by examining the psychological foundations of "new methods" in education, and concludes that "active" learning is superior to "passive" learning. It contains, however, the warning that "memory, passive obedience, imitation of the adult, and the receptive factors in general are as natural to the child as spontaneous activity." (p. 696) This distinction between "passive" and "receptive" modes shows Piaget's delicate attention to children's inner worlds.

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Piaget goes on to bemoan the degree to which education professionals in general have not applied what is known of child development to teaching. He remarks that many profound education reformers were philosophers or doctors, not pedagogues—Comenius, Rousseau, Froebel, Dewey, and Montessori among them. And their thinking and research have not become the foundation for a science of education:

> The general problem is to understand why the vast army of educators now laboring throughout the entire world with such devotion and, in general, with such competence does not engender an elite of researchers capable of making pedagogy into a discipline, at once scientific and alive, that could take its rightful place among all those other applied disciplines that draw upon both art and science. (p. 699)

Much of the rest of the essay gives Piaget's opinions on the teaching of mathematics, philosophy, and the humanities. The

essay concludes with a look at four categories of teaching methods: The receptive, the active, the intuitive, and the programmed. By "intuitive" Piaget means a method that asks students to infer an educational lesson from an external representation; manipulatives, filmstrips, and pottery are each intuitive by Piaget's definition. For Piaget, the meaning of intuitive is literal and technical, not transcendental. Piaget's last category, programmed teaching, includes, especially, early use of computers in the classroom, and has been fostered in the United States especially by Piaget's pupil, Seymour Papert. (see Papert, 1980) Piaget notes that many people confuse active and intuitive methods because they take activity too literally, forgetting or ignoring inner, mental activity.

Ginsburg on Steiner and Piaget

Despite the number of times I have heard Steiner and Piaget mentioned in one breath, I am aware of only one published comparison of their work. This is a brief but excellent article by Iona Ginsburg (1982) that compares stages of children's development as conceptualized by Rudolf Steiner and by Jean Piaget. She correlates Piaget's stages of cognitive development—sensori-motor, concrete operations, and formal operations—with Steiner's descriptions of human development—imitative, imaginative, and intellectual stages.

Piaget defines "stage" clearly, while Steiner uses a less technical vocabulary. For development to occur according to a change from one stage to another, according to Piaget, the order of succession may not vary; developed characteristics must be cumulative; periods of change must be followed by periods of equilibrium; and so on. (Piaget, 1955) These requirements apply, too, to Steiner's descriptions of development. Growth alone, as simple accumulation, is not developmental. "Phases" that come and go often do not meet the criteria for stage development. Age-appropriate learning or behavior may or may not occur within the context of stage development. Stage development is at once more rigorous and more global than common understandings of maturation. Stage development provides evidence of "metamorphosis," a change in form that signals a concurrent change in quality; the physical and physiological changes of puberty are accompanied by emotional and intellectual changes, and vice versa.

Among Ginsburg's concerns, shared with Piaget himself, is the degree to which Piaget's work, despite its apparent implications for education, has not been applied to classroom practice. She attributes this lack to the fact that Piaget's research "leaves out vivid and vital aspects of the child's total development—feeling, attachment, impulse, fantasy, and their impact on cognition itself." (p. 328) Because Steiner focused on "the totality of development" (p. 329), Ginsburg believes his work, despite its lack of conventional scientific rigor, has had greater success in influencing classroom practice.

In comparing Piaget's and Steiner's descriptions of stage development, Ginsburg is more specific with regard to ages than either Steiner or Piaget. Steiner (1965 and many other places) refers to a transformation "about age seven" (p. 20), more accurately associated with the loss of milk teeth, a process that often takes more than a year and can begin at age five or be prolonged well past age seven. Similarly, Piaget (1955) is at pains to emphasize "not the timing, but the order of succession [of acquisition]" in stage development. Chronology, he writes, "is extremely variable; it depends on the previous experience of the individuals, and not only on their maturation, and it depends especially on the social milieu that can accelerate or retard the appearance of a stage, or even prevent its appearance." (p. 815) Steiner tacitly acknowledges this characteristic of a stage, too. While many Waldorf teachers speak of Steiner's stages as if they possessed some concrete

reality, Steiner acknowledged not only their relevance to a specific cultural here-and-now, but also their variation based on both spiritual and physiological variations among people. (See, for example, *Curative Education*, 1972.) The point of Steiner's descriptions was not to normalize a child's place in a class—a constant danger of a developmental point of view, regardless of the developmentalist (see Morss, 1995)—but to provide insight for better teaching.

Ginsburg recognizes that many of the contrasts between Steiner and Piaget are based on profound differences in frame of reference and worldview. Piaget, who was not a teacher, focused single-mindedly on the development of the structures of cognition in children, from the perspective of a scientist who studied the changes with age and the growth of the capacity to know. Steiner and the education based on his insights have a view of the stages of child development based largely on intuition, which encompasses awareness of the impact of feeling, fantasy (almost certainly a British mistranslation of what is meant by "imagination"), form, color, and human relatedness in cognitive development.

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Five Similarities

While I agree with Ginsburg's recognition of the differences between Steiner and Piaget, I also believe that there are similarities that she has overlooked. I will examine four of these points below, supporting them with reference to Steiner's early pamphlet, *The Education of the Child in the Light of Anthroposophy*. Readers familiar with Steiner's work will recognize that he made similar points in dozens of other lectures and writings. More to the point, *The Education of the Child* was actually written by Steiner, not transcribed from shorthand notes of a lecture, and can therefore be held to be more precisely what he intended to say.

First, both Steiner and Piaget recognize the importance of imitation in the development of children. Steiner writes, "There are two magic words that indicate how the child enters into relations with his environment. They are: Imitation and Example. . . . For no age in life is this more true than for the first stage of childhood, before the change of teeth. . . . The child… does not learn by instruction or admonition, but by imitation." (pp. 24–25) Piaget (1962) regards "imitation as the process that ensures the transition from sensori-motor intelligence to representative imagery." (p. 509) That is to say, for example, that it is through imitation that an infant learns to speak. Further, Piaget (1966) describes the "mental image" as an "internalized imitation." (p. 490) This could be Steiner's language as well.

Second, both Steiner and Piaget recognize the importance of symbolic understanding. Steiner writes, "It is essential that the secrets of nature, the laws of life, be taught to the boy or girl, not in dry intellectual concepts, but as far as possible in symbols." (p. 33) Piaget writes: "Symbolic play is the apogee of children's play." (p. 492)

Third, Piaget's well-known developmental path from assimilation to equilibrium is mirrored, I believe, in Steiner's description of the process by which memories become concepts. "It is necessary for man not only to remember what he understands, but to understand what he already knows—that is to say, what he has acquired by memory in the way the child acquires language.… First there must be [for example] the assimilation of historical events through the memory, then the grasping of them in intellectual concepts." (p. 39) Not all memory-to-concept shifts achieve the status of Piagetian equilibrium, clearly, but, as each

of Steiner's stages is achieved, the quality of concepts may be said to alter significantly enough to equate with Piaget's description. Specifically, as Steiner describes, concepts in early life grow from activity engendered through imitation and example; later, from feeling-imbued imagination and appropriate authority; and only then from a rational and potentially abstract understanding.

Last, both Steiner and Piaget developed corresponding "threefold" views of human psychology. Steiner described "the several faculties of the soul—thinking, feeling, and willing" (1965, p. 41), while Piaget often described "subsystems" of "intellect," "affect" and "activity." (See 1966, p. 492, for example.)

The central or overarching point of agreement, however, is that both Piaget and Steiner found children intrinsically interesting in themselves and valued children's perceptions and experiences on their own terms. Neither man forwarded a utilitarian or a "Whig" version of childhood (that is, one that is based on expectations of a known but yet-to-emerge adulthood).

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A Big Difference

Steiner's and Piaget's use of language differs enormously, however, in connotation. When Piaget uses a phrase like "mental image" (1963) or a word like "imitation" (1962), he is using the terms to designate generalizations based on controlled observations in his life and in his laboratory. When Steiner uses the same terms, he is using them as indications of concepts that have layers, and may be understood at once, for example, on the generic level on which Piaget operates, and also on potentially more profound and more individual levels. Both men were empiricists, but they would clearly have disagreed on the limits of empiricism. I do not believe it is fair to say, as Ginsburg does, that Steiner and Piaget necessarily differed in worldview. It is not possible to intuit from Piaget's careful scientific writings what his actual worldview may have been.

It is tempting to say that Piaget's results, more conventionally scientific and more generic than Steiner's, could be subsumed or swallowed whole by Steiner's more inclusive, comprehensive view or experience. This does a disservice to both men, however, in that Steiner's point was often to transcend the generic (See, for example, Bortoft, 1996, especially "Modes of Consciousness," pp. 61-68), while Piaget aimed to "make of epistemology an experimental discipline as well as a theoretical one." (1995, pp. xi–xii) Both Steiner and Piaget foreswore theorizing as an end in itself. Both believed powerfully in the value of experience. Experience, for Steiner, however, expands as faculties of perception and conception evolve, and is, at root, imaginative and unbounded. Experience, for Piaget, is given through relatively fixed relationships of sense organs to mind, and, within these limits, may be explored through controlled study.