## The Bounded Indeterminacy of Tradition



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I met Jaan Valsiner in 1991, when I had the opportunity to participate, as a guest, in a series of three seminars he gave, organized by the Group of Research Thought and Language of the Faculty of Education of the State University of Campinas (UNICAMP), Brazil. Valsiner approached, in each seminar, the following subjects: Soviet Psychology, Epistemology of Psychology and Children's Cultural Development. In 1992, I was also invited to join the activities provided by that same research group, at the Education Faculty, now as a mini-course given by Valsiner, with the title of Co-constructivist Research Methodology. During the seminars and the mini-course, I realized that the person giving it was someone with not only original ideas, but who at the same time presented a great challenge to contemporary psychology based on consistent theoretical-methodological constructions.

What I didn't know, however, is that there was also a person that would be a partner in debates and academic endeavours of great intellectual opening and a friend of many "cafezinhos" and dinners, in many places, starting from Chapel Hill, where I began my post-doctorate under his supervision in 1997. Since that time, Jaan Valsiner has been a constant and generous contributor of the Laboratory of Verbal Interaction and Knowledge Construction at the Institute of Psychology of the University of São Paulo, Brazil.

For this occasion of tribute to him, I chose to elaborate some reflections on the concept of *bounded indeterminacy*, because I consider it to one of the main concepts that expose the genetic-cultural heritage, as well as the significance of Valsiner's work to the contemporary cultural psychology. *The concept of bounded indeterminacy* clearly dispels Jaan Valsiner's semiotic-cultural psychology from the dichotomy of a self-sufficient self, on the one hand, and from a sovereign environment

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external to the self, on the other hand. Equally, the concept marks Valsiner's psychology as one that denies linear causality, offering as a counterpoint a path that points to the human life's bidirectional personal-cultural channelling, which anchors itself in its own human meaning-making.

One of Valsiner's perspective resonances is to give semiotic-cultural psychology the possibility to establish an integrative dialogue with the notion of tradition, in the hermeneutic sense of Hans-Georg Gadamer, as a part of the process of formation and transformation of the symbolic field of action that is culture (Boesch, 1991). The importance of this integration lies in the fact that it opens a way to approach issues concerning the place of tradition as a constraining human cultural construction, which is inherent in the I-other-world relationships. These issues are not very often approached by semiotic-cultural psychology, in spite of its tacitly recognized importance.

For this reason, my objective in this chapter will be to first revisit some central aspects of the notion of *bounded indeterminacy* (Valsiner, 1989/1997), pointing out its ontological relevance, and, second, outline how this concept can be articulated with the notion of tradition, grounded in Gadamer's hermeneutics (1975/1989).

As argued on another occasion, "(...) ontological issues ask for the nature of the subject-other-world relationships that allow the subject's constitution and transformation; they call for the predication of the being, which unfolds in meaningful aspects that distinguish a psychological subject from all other instances that are not it in different psychologies" (Simão, 2016, p.572). ). To that extent, ontological subjects that concern psychology regard the nature of the self and its relationship with others and its world. Those relations allow the self its construction and subjective transformation in that world and also allow the self to symbolically construct that world, amidst sharing and differing with others. The notion of *bounded indeterminacy* is, from this point of view, a concept that ontologically defines Jaan Valsiner's semiotic-cultural psychology because it is one of its angular stones—if not the most important—of its conception about the nature of relations between the subject, others and his or her world, making explicit the conditions of the subject's constitution and transformation in that world and of that world.

## 1 Let's See How

The origins and relevance of the notion of **bounded indeterminacy** to the understanding of the nature of human development.

The notion of *bounded indeterminacy* arises, in its centrality, in *Culture and the Development of Children's Action* (Valsiner, 1997). This work is, according to Valsiner himself, one of his five monographs which represent his main contribution to knowledge (Valsiner, 2014). Afterward, this notion will also be one of the constructive axis of his "cultural-psychological theory of human personality on the basis of semiotics" (Valsiner, 2014, p. 2), developed in *The Guided Mind* (Valsiner, 1998).

In *Culture and the Development of Children's Action*, among the basic assumptions that ground psychological research, especially psychological research about human development, Valsiner (1977) highlights, in the first place, the kinds of the relationships between the person and the environment.

It is about, as Valsiner proposes, relationships that are always of differentiation. However, this differentiation can happen in two ways, characterizing two great assumptions in human development psychology, regarding what we have been calling, contemporarily, I-other-world relationships. The first assumption that orientates some developmental psychologies is that of *exclusive separation*, in which the phenomena that are studied are separated from their contexts, which become irrelevant: "This purified phenomenon is further studied as if it were independent from its context" (Valsiner, 1997, p. 24). The second assumption, in which lies the foundation of Valsiner's psychology, is that of *inclusive separation*, according to which, the phenomena are also differentiated from their contexts, but in ways that continue to make them interdependent with it.

The assumption of *inclusive separation* aligns with the notion of *open systems*, in which the phenomena in study:

"are dependent on exchange relationships with their environments, and their structural organization is maintained, or enhanced, by these relationships. If closed systems can be contextualized as context-free, then open systems by definition are context-dependent" (Valsiner, 1997, p.24)

Still according to Valsiner (1997), the development of the open systems happens under the principle of equifinality, according to which similar events can occur by means of processes quite different from each other. For this reason:

"(...) it is impossible to predict the outcomes of the development of an open system from the starting state of that system because the system's interdependence with its environment and the possibility of different developmental trajectories keep the developing system open to adaptive changes most of the time. Because of open system nature of development, it is not possible conceptualize development as taking place along a fixed, unilinear trajectory. Instead, multiple trajectories of development can be expected theoretically and sought in empirical studies, even if the sets of these trajectories occur within a certain relatively common range" (p. 24)

The perspective of human being as an open system, which is in a relation of *inclusive separation* with the environment, as per the principle of equifinality, is the one responsible for the sustaining of the explanation of how adaptative changes are possible, creating the emergence of new developmental forms over time, in a trajectory of equifinality.

The fact that the human being is an open system in a relation of *inclusive separation* with its environment makes the human development happens through a process of *bounded indeterminacy*<sup>1</sup>, meaning, in synthesis, that the development of the

<sup>&</sup>lt;sup>1</sup>According to Valsiner, this notion is closer to the notion of *probabilistic epigenesis*, from Gottlieb, 1976, 1992)(cf. Valsiner, 1997, p.323).

human being is channelled<sup>2</sup> through by the environment, which gradually guides it, directing their possibilities, but not determining them in the linear causality way.

This process ensures that the development of each particular individual follows a singular route, within certain limits, also allowing it to adapt to unexpected changes in the environment. This channelling is made both by the social others and the individual himself, guiding the actions that are given in its singular course in the general predictable direction of the development process (cf. Valsiner, 1997, p. 165).

Therefore, *bounded* has the meaning of *boundary*, that is, *something that limits* the indeterminacy of human personal development.

However, this something, which limits the indeterminacy of personal development, channelling it, is not passively placed or given in the environment, but is constructed in the I-other relations, by the purposeful action of others directed to the I and from the I to them and to oneself. According to Valsiner (1977) in the context of child development:

"The constraint structure is not 'just there' for the child to develop by. It is made up by purposefully acting participants who take the child's current developmental state into account in one or another way.

Second, the child can actively constrain their own development - in the immediate (short) terms or by feed-forward preparation of constraints a longer term ahead. In either case, the child participates actively in its own development by altering its constraining structure. Canalization as the general mechanism of children's action and cognitive development is a gradual process in which earlier child-environment structures guide the child's subsequent in the direction of new structures, which, in turn, canalize the child's progress further". (pp. 165-166)

Valsiner states, thus, in his co-constructive perspective of human development, given by the relation of person-environment, that the social others are an integral part as mediator and, thereby, function to channel development (cf. Valsiner, 1997, p.166).

The most relevant theoretical-methodological predication according to the *bounded indeterminacy* is that, given that "the real action of development takes place at times and in ways that are difficult to observe or invade"—that is, the previsibility of a particular fact in the course of development is nearly impossible (Valsiner, 1997, p. 115).

It follows that the intervention of a researcher in any development phenomenon doesn't generate, as a rule, a result that helps confirming or infirming her hypothesis. An intervention "A" in a development phenomenon can generate a series of forms of expression of this phenomenon (B, C, D, etc....), among which there will occur, probably, a totally new expression, out of its expected ambit, imagined, hypothesized by the researcher. On the other hand, by the principle of equifinality, the general direction of the process will be, however, predictable (cf. Valsiner, 1997, p. 115).

So, the notion of *bounded indeterminacy* plays a role of double importance in the development studies, as it concerns two interrelated and simultaneous levels,

<sup>&</sup>lt;sup>2</sup> Valsiner takes this notion of canalization from Waddington's biology (cf. Valsiner, 1997, p. 164).

theoretical and methodological: insofar as the *bounded indeterminacy* guarantees the emergence of novelty within certain limits, in the relation of the person with their environment, this same *bounded indeterminacy* makes the researcher, who is not able to predict and strictly control the results of his intervention in the phenomenon, needs to develop himself, on his side, seeking new forms of comprehension of that phenomenon.

According to Valsiner, the theoretical value of the principle of *bounded indeterminacy* is given by the fact that it accounts for the articulation and regulation between the intra- and inter-psychological levels of the subject in the process of co-construction of their self-development with others, which transforms and reorganizes the subject through their whole life (cf. Valsiner, 1997, p.309).

In the ambit of the self-development, the notion of *bounded indeterminacy* consequently allows Valsiner (1998) to propose that "the process of development is organized by the constant construction and reconstruction of constraints upon the stream of conduct in any corresponding context" (p. 3). It's important to highlight here that we're dealing with an articulation and regulation of the self that gives it *limited autonomy* in its development of new ways in the I-world relation, depending on the *context* in which its actions occurs, being such limitation mostly *temporarily* placed by its other socials (cf. Valsiner, 1998, p.386; my emphases)<sup>3</sup>. In this sense, the notion of *bounded indeterminacy* has directly to do with the question of futurity, once it regards the equifinal trajectories which, contextually, may or may not actualize in the course of each person's development (cf Valsiner, 2013, p. 57, footnote 58).

Last, but not least to our discussion, is the fact that, given Valsiner's perspective, both emergence of new structures and the disappearing of others take place in human development, precisely due to the *bounded indeterminacy* principle.

"Since development entails both the emergence of new structures and disappearance of old ones (involution), transformations at both adjacent (higher, and lower) levels are not only possible but expected. Many structural adaptations of past generations at the neural level (e.g., atavistic non-functional newborn motor reflexes) disappear in ontogeny after showing up for a limited time. The hierarchical order of the developing system is dynamic—it supports openness to novelty at some levels (e.g., psychological) by way of relative fixedness of others (genetic, or neural). Innovation is possible at times at any level of the dynamic hierarchy—but it is unlikely to occur simultaneously at all levels. It is through the coordination of the openness and closedness of the hierarchy that development is buffered against excesses of novelty—development follows the principle of bounded indeterminacy (Valsiner, 1997)". (Valsiner, 2005, p.3)

The principle of *bounded indeterminacy* is, therefore, the axis of subject predication in Jaan Valsiner's semiotic-cultural psychology. This predication makes it possible for us to integrate the role of tradition as an inherently and channelling human cultural construction from a semiotic-cultural perspective.

<sup>&</sup>lt;sup>3</sup>According to Valsiner himself, this dynamicity and temporary, contextual character of the notion of *bounded indeterminacy* is borrowed from the field theory of Kurt Lewin (Valsiner, 1986/1997, p. 183).

## Approaching Tradition in Valsiner's Approach

Hermeneutics has been present in Jaan Valsiner's work. Previously, we've also opened a dialogue between aspects of Gadamer's, Boesch's and Valsiner's *oeuvres*, which was grounded on the role of hermeneutics in their works, explaining the different directions taken in each (cf. Simão, 2005). It is not necessary to repeat that debate but simply to remind that, insofar as each one of them:

"sees both culture and individual as being constructed by meanings as well as constructing them, the interpretation of meanings, that is, the task of hermeneutics, will play a central role in understanding and reflecting on culture–individual relationships". (Simão, 2005, p. 553)

In Valsiner's case, the genetic and historical-cultural tradition from which he starts, to which he belongs, and which has been co-constructing in a dialogue with this tradition, channels it (in Valsiner's own meaning, 1998) to a theoretical-methodological reconstruction directed to the research of fundamental principles. The meaning of the individual action, in the context of cultural mediation, one of human's semiotic regulators, will be therefore interpreted according to those fundamental principles. Hence, his objective is to reach a coherent and generalized comprehension of the part-whole transformative relations which take place in the intra-psychological system and whose system both culture and the other are integral parts.

In the meta-theoretical level, to Valsiner, the universal knowledge of processes in general, and of the symbolic human processes in particular, are grounded on the creative synthesis of the researchers about introspective and extrospective experiences, theirs and others', in the I-world relations. On that account, on various occasions, he strongly criticizes the reduction that has been made of hermeneutics to post-modern view advocating there the impossibility or dispensable character of the universal knowledge (cf., e.g. Valsiner 1998, pp. 192-194). However, to him, the divergence between subject and experimenter, inherent to the hermeneutic processes of knowledge construction, brings the benefit of allowing the emergence of new relevant phenomena to be studied:

"The function of research methods in the evocation of the emergence of novelty makes coconstructivist methodology close to the concerns of hermeneutically oriented researchers. In the hermeneutic process of knowledge construction, the moments of sudden mutual
divergence of communication between experimenter and subject may give rise to the relevant phenomena to be investigated (Hermans, 1991, 1996; Hermans & Bonarius, 1991a,
1991b; Hermans & Kempen, 1995; Hermans, Kempen and van Loon, 1992). This hermeneutic process is dialogic in nature - irrespective of weather that dialogue takes place within
the intra or interpersonal communication process. It entails constant construction of semiotic differences, which include repetitively new versions of phenomena (...) When this
approach is applied to the process of experimenter-subject relations, the objectivity of any
research effort is an hermeneutic process - not pre-given by starting conditions (of "objective methods", etc.)". (Valsiner, 1998, p. 303-4)

However, beyond those places, there still may be another one for the hermeneutics in Valsiner's account. This place is opened up by the notion of *bounded* 

*indeterminacy*, being able to integrate the hermeneutic comprehension of tradition in semiotic-cultural psychology.

The conception of culture as semiosis, in Valsiner, is the key point for the comprehension of his propositions regarding individual development in the core of self-culture relations. In this process, the systems of cultural meaning, both collective and personal, overdetermine the subjective experience, in a two-way movement, in which the subject chooses and makes adjustments in the cultural messages. Thus, the subject becomes the potential agent of change in itself, generating new messages that could be selectively apprehended by himself in another moment, or by other subjects with whom he interacts directly and indirectly, and so on (cf., e.g. Valsiner, 1998).

The conception of culture is, therefore, of a processual interactive bidirectional structure, keeping a relation of *bounded indeterminacy* with the individuals. In the present discussion, it means that, in the subject-culture relation, neither subject, nor culture, are processual structures totally opened or totally closed, but partially and circumstantially opened to one another's interventions at the same time that they are conservative. As Valsiner (1986/1997) points out, it is this characteristic of *bounded indeterminacy* that guarantees the systems the possibility of, simultaneously, continuity and change.

Valsiner's conception leads us to the directing process of the pre-conceptions by the cultural tradition, as in Gadamer's work. In both cases, the approach of the subject in the relation with others is, from the beginning, instructed by his pre-conceptions that will be reviewed and relocated selectively, in the course of the proper relation, projecting transformations.

More recently, in *An Invitation to Cultural Psychology*, Valsiner (2013) indicates the possibility and pertinence of a closer dialogue between the hermeneutic notion of tradition and semiotic-cultural psychology that is possible if we take into account that the notion of *bounded indeterminacy* acts as a background making this dialogue possible.

Right from the beginning, Valsiner (2013) tells us that "Creating innovations is the main tradition of the human ways of living" (p. 10). Far ahead, he synthesises how this happens:

"The cultural-historical context of any feature of human lives involves historical traditions which—by their trajectories in the past—orient the macro-social unit towards its future. These trajectories are not linear—in fact they may be non-monotonic and possess cyclical features". (Valsiner, 2013, p. 220) <sup>4</sup>

In these passages, Valsiner (2013) leads us to the macro-social aspect of historical tradition, granting it great value as in the ambit of the emergence of novelty in the human beings. It also leads us to the ambit of temporality and of the non-linear processes, but cyclical of those social innovations that are human tradition. It

<sup>&</sup>lt;sup>4</sup>The term "tradition" is mentioned 53 times in the work (Valsiner, 2013). However, we believe that these two moments are the most significant for the dialogue we intend to establish here between the notion of *bounded indeterminacy* and the one of tradition.

remains, however, the open space to a view more directed to the tradition in its aspect of *bounded indeterminacy* and in the more contextual ambit of the here and now of the relation of the self with its others.

In order to enter this still open space, a deepening of Gadamer's notion of tradition is relevant.

In synthetic ways and according to Warnke (2012):

"In Gadamer's philosophical hermeneutics, tradition designates the historically pre-given. As socialized human beings we are always already immersed in particular ways of coping with our world. We possess certain forms of practical knowledge, do things in certain ways, and take certain concepts and conceptual relations for granted. These forms of knowing and acting function as deeply rooted pre-agreements, or what Gadamer calls prejudices, that orient our further explorations". (p.6)

So, tradition in Gadamerian hermeneutics is implied in the personal formation (*Bildung*) that takes place in collective culture (see also Brinkmann, this volume). The "voice of the past" presentifies itself for the I, through symbolic actions of the other, creating demands for the personal-cultural fitting, that in turn alters their horizons (Gadamer, 1975/1989) and, as a consequence, their future possibilities. This other can also be myself, where the dialogical demands between the selves (Hermans, Kempen and van Loon, 1995). Therefore, the hermeneutic relation with the past through tradition is addressed to the future, in the sense that it canalizes, under a relationship of *bounded indeterminacy*, the future possibilities of the self in the cultural field of action (Boesch, 1991).

The tradition speaks from the past, as a cultural voice, but it doesn't fit perfectly in the present, because the past won't replicate in the present. In this sense, facing-off tradition the self sees itself before the urgency of reconstructing tradition in the present, which means that tradition operates in terms of *bounded indeterminacy* regarding its projected future.

As for tradition operates according to the principle of bounded indeterminacy, it imposes to the self to deal with temporality in two interconnected ways (Simão, 2015). First, once the contents that make interpellations in the present will only be comprehensible through a transformative process of oneself (Bildung), which is at the same time a transformation of those contents that come from tradition. In short, it deals with becoming. Second, it will impose itself on the subject to deal with their limits, their finitude: the person experienced "knows the limits of any prevision and the insecurity of every plan", "knows that it's not the lord of time, nor of the future" (Gadamer, 1975/1996 p.433).

What Valsiner proposes as *bounded indeterminacy* is present in the hermeneutic dialogue that the I and the other go placing themselves sometimes as enablers, sometimes as restrictors of the dialogue's course.

As highlighted by Grodin (2002), the comprehension implies an agreement in the conversation, through the articulation of the words, that are so both and always of the I, and of the other, to whom the I aims to understand. That's why, in Gadamerian hermeneutics the dialogue is a field of tensional relation between the past, present and future, between possible and impossible, but desired, expected.

If, in Gadamerian hermeneutics, on the one hand, the lack of consensus validates the authenticity of the other, because it confronts the subject with the experience of negation, on the other hand, the full consensus still remains possible and necessary to be reached, meaning the true comprehension. But, in any case, the rupture of the expectation related to the consensus and the permanent search for comprehension leaves the I and the other in a permanent reconstructive task in dialogue, consequently addressed to the future.

As Harrist and Richardson (2011) point out, the human communication "involves an exquisite, quintessentially human, sometimes almost unbearable tension" (p. 345), once it involves beliefs that regard our self-definition and values that we cherish, in which we invest affectionately with intensity, and that may sound to us as partial and distorted in the voices of others. On the other hand, as said by those same authors, as the same occurs from us regarding the others:

" we need not just to compromise and get along with others, but to learn from the past, others, or other cultures. Thus, in matters closest to our hearts, we depend greatly upon these others, their insights, their critical challenge of our points of view, and their beneficent influence". (Harrist & Richardson, 2011, p. 345)

This process is characterized by the dynamics of the hermeneutic circle. In a few words, it's about a construction of meaning in which the whole is understood by the individual and the individual by the whole. This process of meaning construction is ruled by expectations derived from the context previous to the encounter with what one sought to understand (it is noted here the past-present relation). Such expectations can, on the other hand, be rectified, if the object to be comprehended so demands, in such a way as to readjust each other, expectations and object found (notice here a reciprocal *bounded indeterminacy* created by the I and the other). This way, the comprehension converges in a unity of thought, from the expectation of the meaning (it is noted here the present-future relation in the adjustment and creation of the new expectation, in a spiral movement). The criteria for the correct comprehension will be the confluence of all the details in a whole.

All of this is possible thanks to the anticipation of the meaning of the I when relating interpretatively (hermeneutically) with what it seeks to comprehend. If, on the one hand, the meaning constructions are ruled by the derived expectations of context previous to the encounter of what is sought to comprehend (the preconceptions, in Gadamer's sense), those expectations will be, on the other hand, rectified by the demands placed by the object that one seeks to comprehend. Again here, the centrality of the relation past-future, presentified.

Our pre-conceptions, brought from tradition, are not a fixed heritage of opinions and values that form our present horizon of comprehension, as they are constantly challenged by the horizons of the other, brought in communication, and by the proper symbolic displacement of the voice of tradition in the possibilities of interpretation of the present. Thus, both the voice of the other and this displacement of tradition in present exert the role of *bounded indeterminacy* in our interpretations of here and now, allowing some (and not other) plans related to the future, motivating some (and not other) imaginations to the future, making us seek to transform certain

(and not other) direction seeking to transform our I-other-world relations. All of the difficulty and affective-cognitive effort that this process anchored in the *bounded indeterminacy* requires makes the emergence of novelty, in Valsiner's terms, a fact to celebrate.

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