

THE RECIPROCAL INHERENCY OF SELF AND CONTEXT. NOTES FOR A SEMIOTIC MODEL OF THE CONSTITUTION OF EXPERIENCE

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Abstract

The idea of the context as something outside the mind and as such affecting, framing, regulating, feeding it is unsatisfactory. In this work I propose an alternative view, based on a dynamic, dialogic, and semiotic model of the process of the constitution of the experience. Accordingly, the context is inherently linked to the mind. Mind and context cannot be conceived as separate entities interacting with each other. Rather, they are forms of description, on different spatial-temporal scales, of the same basic dynamics of semiotization. The self and context are the same thing – two sides of the same coin. In the second part of the paper I draw some implications from the theory of context proposed. I show how it entails the idea that, in the final analysis, the context is the ground of the sense of continuity and fullness of the self and the experience of the world. A rather radical change of perspective is involved here: it is not the ontological quality of the world that grounds the sense of continuity of the experience. Rather, it is the sense of continuity of the experience that feeds our embodied feeling of the ontological subsistence of the world.

Keywords: Context; Dialogicality; SIA; SIP; Micro-genetic constitution of experience.

Resumo

A ideia do contexto como algo exterior à mente e, como tal, afectando, enquadrando, regulando e alimentando-a, é insatisfatória. Neste trabalho proponho uma visão alternativa, com base num modelo dinâmico, dialógico e semiótico do processo de constituição da experiência. Assim, o contexto está intrinsecamente ligado à mente. Mente e contexto não podem ser concebidos como entidades



separadas que interagem uma com a outra. Pelo contrário, constituem formas de descrição, em diferentes escalas espaço-temporais, das mesmas dinâmicas básicas de semiotização. O *Self* e o contexto são a mesma coisa – dois lados da mesma moeda. Na segunda parte deste artigo retiro algumas implicações da teoria do contexto proposta. Mostro como ela implica a ideia de que, em última análise, o contexto constitui o fundamento do sentido de continuidade e plenitude do *Self* e da experiência do mundo. Esta ideia implica uma mudança bastante radical de perspectiva: não é a qualidade ontológica do mundo que fundamenta o sentido de continuidade da experiência. Pelo contrário, é o sentido de continuidade da experiência que alimenta o nosso sentimento encarnado da subsistência ontológica do mundo.

Palavras-chave: Contexto; Dialogicidade; *SIA*; *SIP*; Constituição micro-genética da experiência.

Introduction

The idea that the mind is not just held within the skull, but is produced in relation with the context finds a great many supporters. Problems start when one tries to define more precisely what is actually meant by the term “context” and how this relation works specifically. Psychology and more in general the social sciences have proposed many theories of the context, each of them providing a specific interpretation of the way mind and world are related. Environment, activity, culture, intersubjectivity, social representations, collective unconscious, *Dasein*, otherness, language game, frame, voices: these, and others, are terms denoting the many ways of interpreting the entanglement between mind and context and the role the latter plays in psychological phenomena.

Needless to say, such an array of theories is so varied that any generalization is doomed to be an over-simplification. Nevertheless, I believe that one can reliably recognize a basic conceptual attitude found in many of the theories: The view that the context and the mind are two different entities that, as such, can be studied in their engagement. I call that view the *separateness* of the context. Thanks to it, the context lends itself to be treated as an *explicans*, namely something which, when referred to,

enables a better understanding of something else (in this case, psychological phenomena).

The separateness of the context manifests itself in many guises. One can track it down, as it were, indirectly, in the critical reactions it raises in different theoretical fields. Several theoreticians interested in the development of the dialogical view of mind have pointed out that the specificity of such a view lies in the role played by otherness in the very constitution of the self (Grossen, 2009; Linell, 2009, Salgado & Clegg, 2011; Salvatore & Gennaro, 2012; Salvatore, 2004; Salvatore & Venuleo, 2008). The constitutive role of otherness is what distinguishes dialogical theories from other relational theories, which, even if they attribute a significant role to the other, conceive of it as something that comes secondarily, namely as a dimension which the self – assumed as a self-contained entity - engages with. A basic criticism that cultural psychology addresses to cross-cultural psychology is that the latter regards culture as being outside the mind, a context-container individuals belong to and therefore are characterized by. In opposition to this view, cultural psychology underlines how culture is a constitutive dimension of the mind, a process sustaining it rather than acting on it from the outside (Valsiner, 2007). Recently, Cousins (2012) has addressed this kind of criticism to cognitivism. Even if one may disagree with the solution he proposes, the point he raises is central – cognitivism treats the representation as the basic unit of analysis of mental processes, as if the fact that they are endowed with psychological value (i.e. with meaning) were something obvious, rather than the basic problem psychology should address. In the final analysis, what Cousins (2012) underlines is the oddness of a view of cultural meaning as a taken-for-granted, pre-existing, separate reality acting from the outside on the psychological process of construction of experience. Similarly, both from inside and outside the field of Social Representations Theory many voices have been raised against a representationist interpretation of such a notion (Palmonari, 1989; Sammut, Daanen & Sartawi, 2010; Valsiner, 2009; Verheggen & Baerveldt, 2007). Also in this case, in the final analysis such criticisms share the basic dissatisfaction for the platonism entailed in the vision of knowledge as an entity situated in some place outside the mind, and from there interacting with - grounding, guiding, constraining – individual minds (e.g. Doise, 1986). Juxtaposed to this view, there is the idea of knowledge as the embodied participation in a system of practices – “Knowledge is being” (Verheggen & Baerveldt, 2012 p. 283). Accordingly, shared knowledge is not a matter of negotiated representations, but the shape of the world of actions one is immersed in. Context and psychological life cannot be



separated. As Verheggen and Baerveldt (2012) highlight, this view is indebted to Heidegger's idea of being as constituted by the fact that it inherently belongs to the world.

This paper is part of the theoretical area defined by the criticisms reported above. It intends to carry out the constructive task of completing the deconstruction of the reified view of the context entailed in the idea of separateness. To be sure, this is a hard task. Dialogism, cultural psychology (in particular the cultural psychology embracing a semiotic perspective), enactivism, phenomenology, are the many streams of thought – partially intertwined, partially running in parallel – that have elaborated thoughtful models of the reciprocal constitutiveness of mind and context, of their being part of a dynamic totality. Such models, however, tend (with few exceptions, e.g. Linell, 2009; Valsiner, 2007) to lie on a general – mesogenetic and ontogenetic – level of analysis. Thus, we have convincing theories allowing us to rethink the mind-context in terms of reciprocal immanence, but it is still not clear how such reciprocal immanence works – which micro-genetic mechanisms bring it about. This paper intends to contribute to filling this gap. More in particular, by being grounded on a semiotic framework – i.e. the idea that the mind is an ongoing dynamics of sensemaking (Salvatore & Pagano, 2005; Valsiner, 2001; Zittoun, 2006) – I will propose a micro-genetic model of the constitution of experience entailing a view of the context as an immanent, constitutive dimension of the self.

In the first part of the paper, as a starting point, the issues of separateness are briefly discussed. The second part is devoted to outlining a semiotic micro-genetic model of the constitution of experience. In the third I discuss the implications of such a model as concerns how to see the context and its inherency to the psychological process.

The Hard Task of Psychology

Meaning is usually assumed as a discrete entity existing independently from the semiotic flow (sensemaking) and ready to enter it. This assumption is consistent with the commonsense view as well as the basic implicit metaphysical grounds of the traditional psychological and psychodynamic theories. According to this metaphysical ground, the world is made of discrete stable representational units, and as such is suitable to be perceived and understood (for a criticism of this assumption, see Manzotti, 2010).

Actually, the dynamics of sensemaking as seen from the inside of that process must be distinguished from the way this dynamics works. From the inside, the interpreter experiences an ongoing chain of meanings. Yet this does not mean that meanings are the basic elements of sensemaking; rather, they have to be considered intermediate output – Peirce considers them in terms of *Thirdness* (Peirce, 1897/1932). Persons are immersed in the world and the basic, elementary, immediate experience of it comes in a cascade of patterns of sensorial occurrences lacking any inherent order, any reciprocal relation. According to Peirce's typology of the conditions of experience, such patterns are experienced in terms of *Firstness*. They are void of relations because infinite possibilities of relation are possible. For something to be used as a sign (therefore a meaning), first it has to be assumed as *something*, namely a persistence producing an effect on the perceiver and the world; in Peirce's terminology, it has to be developed as *Secondness*. Yet the passage from the undifferentiated totality of the unrelated *Firstness* to the *Secondness* of the discrete "something" is not obvious; rather, it is the product of how the field of experience is "cut" and ordered in stable enough clusters of co-occurrences – the objects we perceive and address are the result of this process of discretization, pertinentization and presentification leading to the construction of a world of entities: any objects, facts and qualities in the foreground and all the rest as noise in the background (Bickhard, 2009). In this instant (actually, an instant ago, before I moved my attention to the margin of my field of experience for the sake of producing this example), the noise of the air conditioner in my office is in the background, merged with many other occurrences, like the quality of the light, sensations of muscular tension, the reflection of the computer screen on my glasses and so forth. That basic capacity of making some occurrences pertinent compared to all the others left in the background, enables me to extract connections within the flow of experience, and therefore to perceive objects. It is worth noting that this capacity entails a task that is inherently semiotic – it represents the ground of the semiotic; as it were, the *dark side of sensemaking*: the part of sensemaking which is not its content; rather, it is its basic constituent source.

Here we find the basic limit of any idea of separateness of context. This idea is grounded and reproduces the view of psychology as a science that comes into play once the experience is constituted for the sake of depicting the movements of its content. This is an important task, but it is not the only story to be written. We also need a more fundamental model of sensemaking, whose starting point is the *Firstness* of the whole field of experience (Rosa, 2007), namely the unrelated clusters of



co-occurring states of physical body-environment interaction, sustaining the subject's instantaneous consciousness of being alive (which is broader than awareness; see Stern, 2004; Tronick, 2010). Such a model not only has to conceptualize how signs work and produce meaning, but also how sensemaking produces signs through which its dynamics unfolds. In sum, *psychology has to address the hard task of the emergence of meaning through the reciprocal constitution of self and world.*

The Constitution of Experience. A Micro-Genetic Model

In what follows I try to address this hard task. The model focuses on a narrow temporal window, corresponding to the semiotic flow of only a few transitions between signs. In general terms, it conceives of the micro-dynamics of sensemaking as having an oscillatory trend. It is a trajectory of signs moving through time (Salvatore, 2012); at the same time, any step ahead, namely any new sign, leads to a backward movement of interpretative rewriting of the previous transitions between signs (Salvatore & Zittoun, 2011).

The bivalence of meaning. Significance in praesentia (SIP) and Significance in Absentia (SIA)

As a premise, I explicitly state the bivalent, relational and dynamic view of meaning (Salvatore, Tonti, Gennaro, in press), framing the micro-genetic model of sensemaking, with which my proposal deals.

The meaning of any sign is not the content of the sign itself. Rather, it is produced by it due to the way it combines with previous and following signs – namely, its position in the context.

The contextuality of signs is shown by the fact that the same sign may have many contents. A way of appreciating the polisemy of signs is by recognizing that meaning is inherently oppositional: to state the particular idea (a quality, an action, a condition...) involved is to state the negation of the opposing idea – the statement that “something is X” (“S is X”) means that “something is not something else that could have been instead of X” (“S is not ‘opX’”). Thus, for instance, “S is a girl” means “S is not a boy”.

Now, X is a sensorial experience and as such it is single mundane datum. In contrast, opX is a potentially infinite set of possibilities, simply because it does not

consist of a datum. For instance, to say “S is a girl” can mean not only |S is not a boy|, but also |S is not a woman|, |S is not an old person|, but also |she is not a serious person| and so forth. This is so because oppositional relationships are a matter of discourse, rather than of semantic content, namely because the set of opX is defined by the relation that X has engaged with other signs in the contingencies of discourse.

What is relevant here is not only that there are several possible meanings associable with the act of using a sign, but above all that such meanings are potentially infinite, depending on the specific, contingent local conditions of the communication, namely on the previous historical trajectory of signs characterizing the local discursive activity. For instance, essentially, one can imagine specific discursive circumstance in which stating “She is a girl” can mean |she is not a boy|, but also |she is not a person of different sex| or even |she is not a table|. Actually to do so one just has to imagine a specific local discursive history in accordance to which the trajectory of signs makes such oppositions plausible.

The virtually infinite polysemy of the sign has a very important implication: once it is recognized, the plurality of possible meanings of the sign can no longer be considered a matter of multiple content, namely in terms of a diversification of pre-defined values. The definitions of any word reported in a vocabulary are precisely the most frequent and therefore consolidated ones associated with the word; yet such definitions cannot but be a very minor part of the meanings the word has actually produced in the history of the way it has been used in contingency of discourse: while one can image a circumstance in which the statement “She is a girl” means “She is not a table”, one cannot expect to find such a meaning coded in the vocabulary (at least until such use of the word spreads in communication). Incidentally, the openness of meaning is the basic, foundational quality of semiotic mediation, what allows signs to work as the way mind constructs itself through stepping back from the immediate sensorial field (Valsiner, 2007).

Now, despite of the openness of meaning, people are generally able to understand the meaning of what is stated, at least to a sufficient extent to be able to coordinate with each other as usually happens. This means that a boundary has to be defined in order to constrain the polysemy. This boundary allows people to make certain oppositions X/opX pertinent and push all the infinite potential other oppositions into the background, as not pertinent. Thus, one can conclude that in the final analysis the meaning of the sign emerges as the product of this boundary. Insofar as such a



boundary is set, the sign is charged with a more, or less, circumscribed – but however constrained – *sphere of sense*. How is such a boundary set? According to what mechanism?

What we have said above provides an answer to this very basic question. *It depends on the specific combinations of sign the circumstance of communication consists of.* Thus, the way the signs combine with one another defines the sphere of sense at stake and therefore the specific sign that will follow. The sign that comes after is selected from the subset of signs that are consistent/pertinent with the sphere of sense – in the final analysis the following sign is the fittest for the sphere of sense at question. For instance, imagine that in a certain circumstance of communication the utterance “she is a girl” is in the sphere of sense corresponding to [she is not an old person]. This sphere of sense will work as a constraint on the possible following sign: it will make it more probable that the following sign is selected among the ones that will keep the youth-oldness opposition in play, rather than, say, the subset of signs concerning the tall-short or right-left opposition and the like. In sum, the boundary defining the sphere of sense works as the attractor shaping the trajectory of the syntagmatic chain of signs defined by the instant-by-instant selection of signs on the paradigmatic axis.

Figure 1 gives a pictorial illustration of the concept of syntagmatic and paradigmatic axis as well as of the boundary of the infinite potentiality of meaning defining the pertinent sphere of sense the sign conveys. As the figure shows, in the final analysis the meaning of a sign – i.e. the sphere of sense made pertinent – consists of the specific sign that it enables to come after it.

The considerations proposed above lead meaning to be seen as *bivalent* (Abbey & Valsiner, 2005; Carli, 2007; Ribeiro, Gonçalves & Santos, in press; Valsiner, 2007). On the one hand, it consists of an observable, perceivable side: the sign X. On the other hand, it consists of a pertinent bounded sphere of sense working as the condition for selecting the following sign – what can be defined the ground of the sign, or, in other words: the *condition of interpretability of the sign*. In other works (Salvatore, 2012; Salvatore, in press) I have proposed to call the former side *significance in praesentia* (SIP), and the latter *significance in absentia* (SIA). Meaning is the ratio between SIP and SIA – $M = SIP/SIA$. Think of the lottery: the prize associated with a given number depends neither on its perceivable shape (whether it is 1 or 13 or 17 is irrelevant), nor on the very fact of having been drawn itself. What defines the prize –

namely, the meaning of the selected number – is the ratio between the selected number and all the others that have not been drawn. When a number is extracted from a set of 100 numbers it does not have a comparable importance to the same number being extracted from a set of 10,000 numbers. Similarly, meaning is a matter of positioning within a field of possibilities. Incidentally, this relational standpoint recalls the distinction made by Vygotskij (1934/1986) between sense and meaning. The Russian Author defines "sense" as the "totality of the psychological events aroused in our consciousness by the word", and "meaning" as "only one of the zones of sense that word acquires in the context of some kind of speaking" (p. 305, as translated by Valsiner, 2001, p. 89).

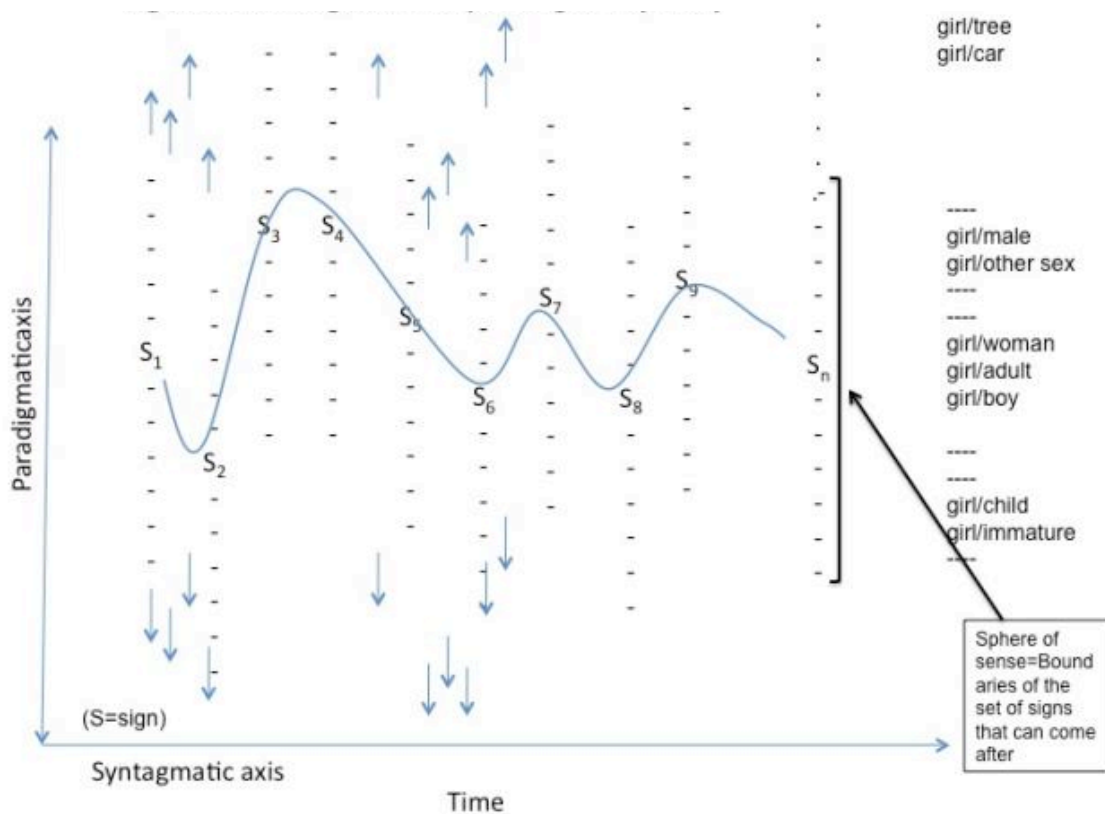


Figure 1 - Meaning as the shape of signs' trajectory

SIA and scenarios

The SIA is not a unitary domain. Rather, it is composed of a variable number of dimensions, working at different levels of abstraction and spatial-temporal extension,

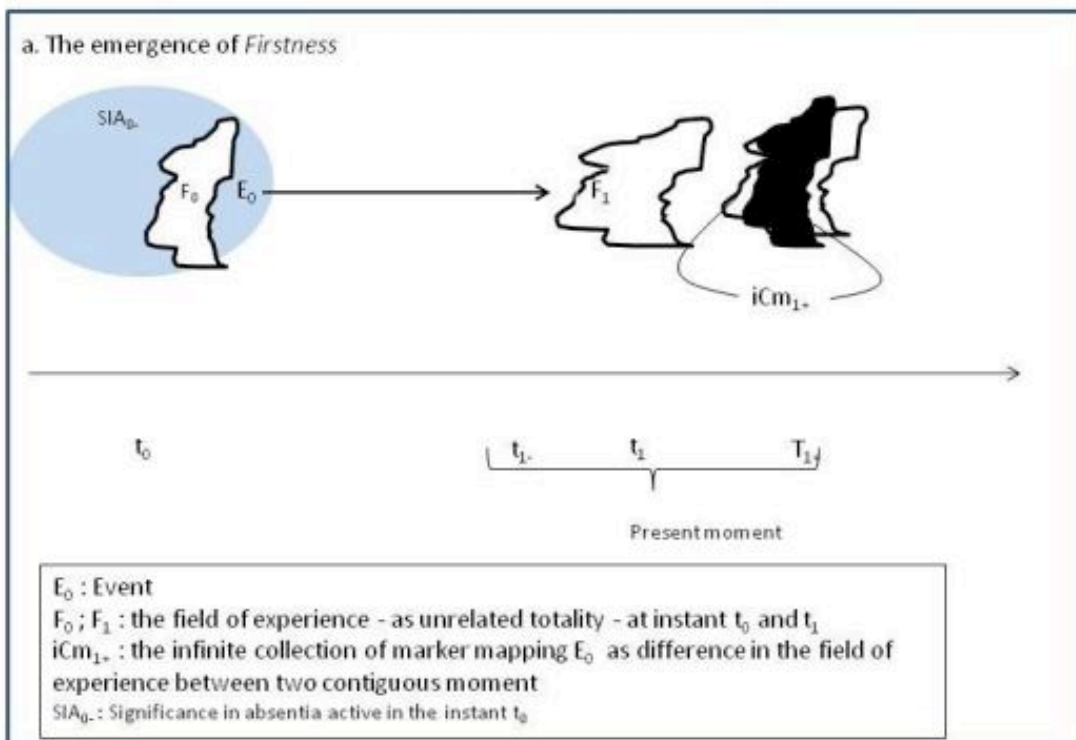


on different contents of experience. Each dimension is associated with a particular domain of life, which I propose to call: *scenario of experience* (henceforth, scenario). Culturally defined markers – segmentation of activities, scripts, social roles, modalities of communication, spatial-temporal units of perception and action, articulations of the material environmental, and so forth - segment the flow of experience into discrete patterns of co-occurring signs, with spatial-temporal extension, namely in lived events endowed with existential value for those who experience them (for a similar view, see Stern, 2004). The scenario is a meaningful unit of subjective experience of the world. It recalls Wittgenstein’s notion of language game. However, the term “scenario” is not limited to the linguistic dimension of semiosis – it encompasses bodies and acts too.

The constitution of experience

On the basis of the bivalent view of meaning proposed above, I can now move on to focus on the micro-genetic dynamics of sensemaking (see figure 2).

Figure 2(a-c). The micro-dynamics of sensemaking



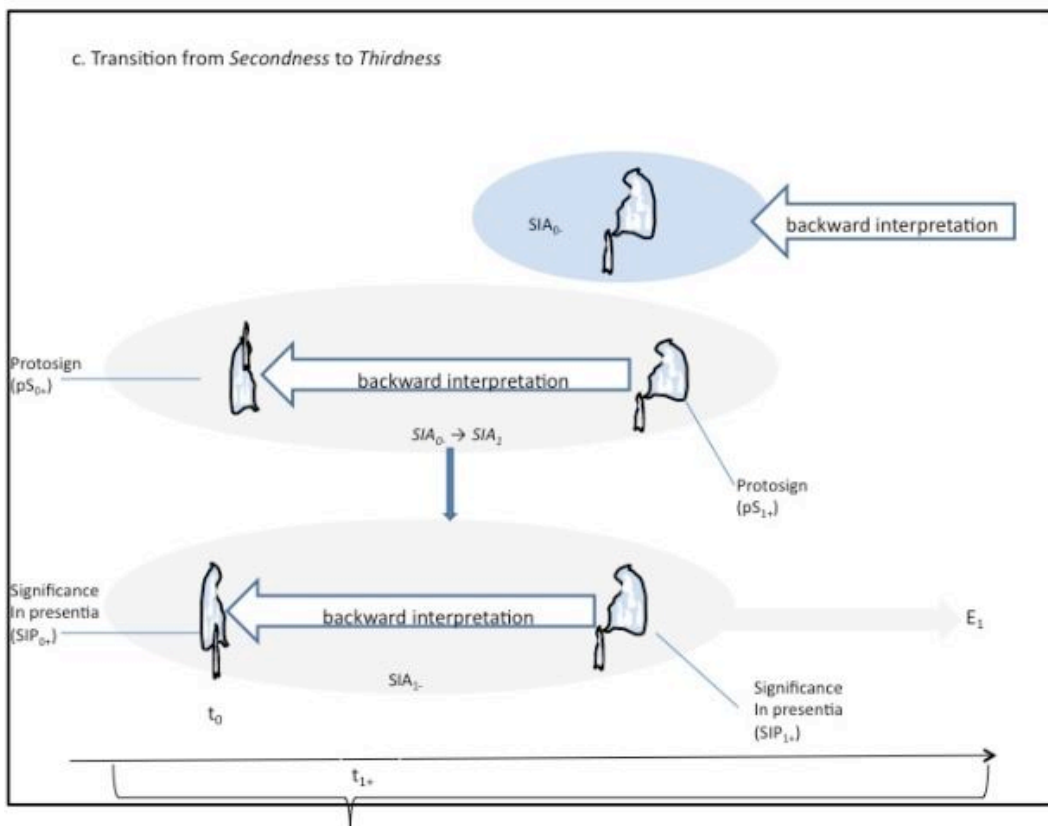
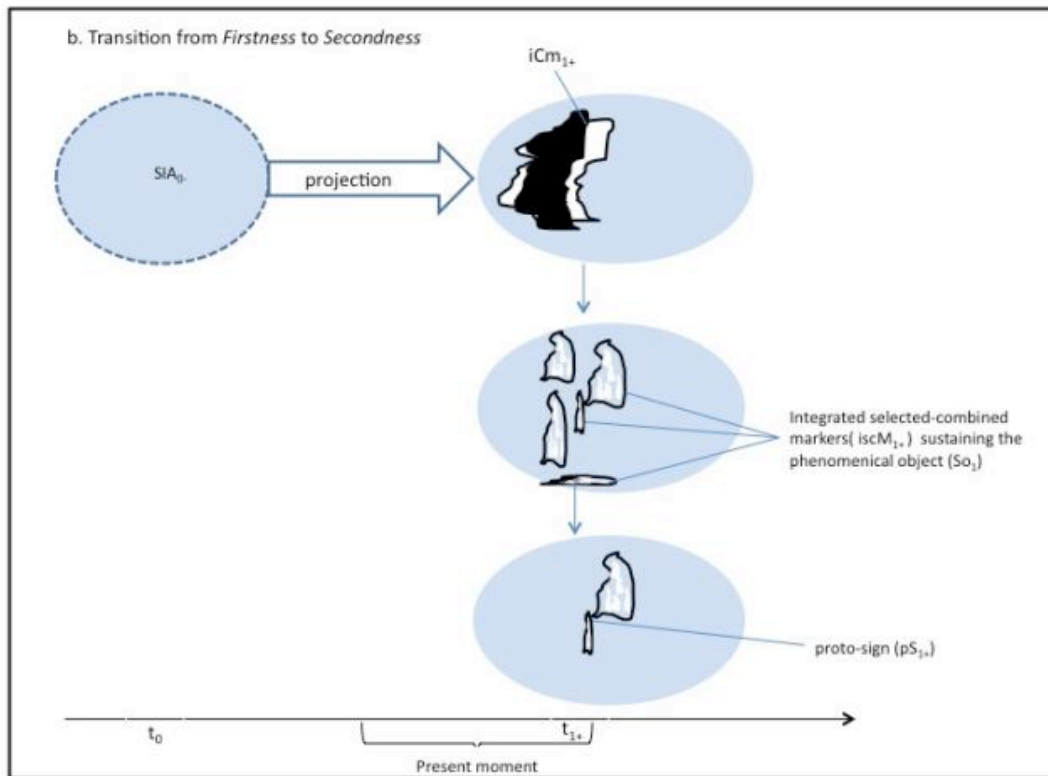


Figure 2 – The micro dynamics of sensemaking



The emergence of Firstness

Consider the instant of time (t_0). Say that at t_0 an action (more in general a certain form of environmental event: E_0) triggers, at the following instant t_1 , an array of physical processes whose first output is the unrelated totality of the effects (F_1) on the sensemaker's body – for simplicity I consider just one sensemaker. For instance, take the person A that is exposed to person B who, in front of her moves her hand and says “hallo, my dear”. Such an event (E_0) produces a very high number of effects on B's body, namely a lot of micro-transformations of its previous states – e.g. changes of the surface of the retina, of the acoustic receptors, of the physiological state, and so forth. It is worth noting that such micro-modifications are not caused just by A's action. Indeed, at this very basic level of organization of the experience, A's action is not yet distinguished from the whole field of experience that goes with it. Therefore, for instance, the set of effects (F_1) on B are triggered by A's act as well as an infinite number of occurrences that are contingent components of the same field – e.g. the level of temperature, the quality of the light, the smell in the air, the colours of the walls in the background, the shape of objects that are present in the visual field and so forth. All these components that comprise the E_0 trigger physical processes that produce a series of independent effects on B's body. The set of such effects is what is called F_1 here.

At time t_{1+} the difference of F_1 compared to the previous state F_0 is mapped in terms of an infinite collection of markers (iCm_{1+}). This is the first shift in the dynamics – *Firstness has come into being* (Figure 2a). Note that the symbols “1+” and “1-” used here and below, mean that the collection at stake has been activated immediately before or after t_1 , however in the temporal surrounds subjectively belonging to t_1 (for a discussion of the present time as having duration, therefore making it possible to consider a past side as well as a future side of the present, see Stern, 2004).

According to this view, in the final analysis the basic form of perception consists of the map of the body's micro-transformations caused by the ongoing dynamics of transformation of energy-matter which makes up the environment. As one can see, such a view is indebted to the idea of the embodiment of mind (Maturana & Varela, 1980; Ziemke, Zlatev & Frank, 2007). On the other hand, it has to be highlighted that perception is not the mere registration of such embodiment-rather, from the very beginning it is a form of interpretation through selection: the body recognizes only the micro-transformations it is equipped to map, namely the micro-transformations it has

the markers to detect. For instance, person B in our previous example will be able to map the effect on her produced by A's tone, as well as the change in the light caused by A's movements, while she has no markers for mapping the minimal change of temperature produced by the presence of A's body. Therefore, such a component of F_1 simply does not enter the field of experience. In sum, according to such a view, the body is the measure and the content of the basic form of perception that makes up Firstness. The paradox of the body lies in this: it causes experience through being "effected" by the world, and in so doing shapes it.

From Firstness to Secondness

Now, assume that a SIA is already active before t_1 , as the precipitate of the previous dynamics of the semiotic flow (for this reason, defined in figure 2 as SIA_0). I adopt the notation "0-" to indicate that this SIA is the precipitate of the backward interaction between E_0 and what has happened before it. The projection of iCm_{1+} on SIA_0 brings about the gestalt organization of the field of experience (figure 2b), namely the selection/combination of markers, integrated with the elements of SIA_0 . (*iscM₁₊*: *integrated- selected-combined markers*), so as to get an efficient and stable enough closure of the form – namely the presentification of a set of phenomenal objects So_1 . Daily life provides many cues of this twofold process of blending and abductive abstraction. For instance, take a person with a very intense aesthetic sense: she perceives occurrences as being blended in a unique gestalt, where other people perceive objects that have no relation to each other. In turn, So_1 s are subjected to pertinentization in terms of SIA_0 – some So_1 s are foregrounded, others moved into the background; this process of abductive abstraction (Bühler, 1934/1990) leads to the discrimination of the discretized field of experience on a constrained focus of attention (i.e. a sentence, a gesture, a sound, a network of a few elements compared to the many potentially involved) – I call this constrained portion of discretized field of experience the proto-sign (pS_{1+}). This is the second shift in the dynamics – *the transition from Firstness to Secondness*.

From Secondness to Thirdness

The pS_{1+} is on the edge of the semiotic world – on the one hand, it is not yet a sign, because it is still unconnected with the previous semiotic flow. On the other hand, however, it is the effect of the previous semiotic flow, being motivated by E_0 – namely it



is what Peirce refers to as the reaction motivated in the mind of the interpreter. Here the third shift comes into being (figure 2c). The pS_{1+} is quite a stable content of consciousness (though not necessarily, even rather rarely, endowed with awareness; on the fluctuating dynamics of consciousness, see Allen & Williams, 2011); as such it is able to trigger the backward interpretation of the previous sign. As a result of the action of this backward interpretation, the reproducing/reshaping of the SIA_{0-} comes about – SIA_{0-} is transformed into SIA_{1-} (the notation “1-” indicates that it is the SIA active at the instant t_1 , concerned with the backward linkage of continuity between the current state of the semiotic flow and that of the previous instant, namely pS_{0+}). The $SIA_{0-} \rightarrow SIA_{1-}$ transformation is the way of defining the ground of pS_{1+} , therefore of building its condition of interpretability, so as to have it loaded with semiotic value. At the same time, the backward connection between pS_{1+} and the previous protosign pS_{0+} leads to the constitution of the latter in terms of SIP_{1+} . *Thirdness is achieved.*

Note that the semiotic value of SIP_{1+} is its capacity to interpret pS_{0+} in terms of and under the conditions of SIA_{1-} . Moreover, it is worth noting that pS_{0+} fulfils its own status of sign only when it is interpreted by pS_{1+} (in so doing acquiring the status of SIP_{1+}) – indeed a sign is such insofar as it is interpreted by the following sign. Needless to say, SIP_{1+} shares the same destiny as pS_{0+} – it has to wait for the following sign to gain semiotic status.

Thus, this view entails that the proto-sign reaches the status of sign in terms of its capacity to interpret the previous proto-sign, namely to make it a sign. Yet, at the same moment it triggers a further protosign that will backwardly reinterpret it – which means that it loses its quality of sign coming to be a protosign. This dynamics of ongoing, never ending backward reinterpretation is evident in (though is not exclusive to) any situation in which the SIA is subjected to a sudden shift. In cases of this kind, any previous sign (at a gradient decreasing in proportion to the distance) is rewritten according to the shift. This process is the basis of many jokes. Take the following story. A lifeguard on the beach is eating a very tasty bowl of spaghetti. A boy arrives and stands in front of him. The boy is very tiny, seems unhealthy, and looks at the spaghetti longingly. He seems very hungry, as if he has been starving for long time. The lifeguard goes on eating, seeming not to notice him. The boy keeps his gaze on the spaghetti. After a while the lifeguard seems to realize the presence of the boy, raises his eyes from the dish, turns to the boy and kindly asks: “You haven’t eaten for a long time, have you?”. The boy, very happy and at the same time shyly nods and says “No, I haven’t”, his eyes like saucers and moving closer to the table. The lifeguard

immediately answers: “Ok, so you can go for a swim ”.

It is worth insisting on the fact that SIP_{1+} and SIA_{1-} are shaped through a reciprocal process of optimization, aimed at creating the best continuity with the current semiotic flow. Thus, from a phenomenological standpoint (i.e. from the point of view of the sensemaker experiencing the semiotic flow), SIP_{1+} instantiates SIA_{1-} , which in turn is the way of linking SIP_{1+} to the previous chain of signs. Therefore the former makes the latter interpretable and enables it to re-interpret the whole chain in reverse, backwardly.

Finally, the SIP_{1+} takes the semiotic chain further, working as the next event (E_1) waiting to be semiotized (i.e. interpreted) by the effect it produces – an effect that in turn will be semiotized in terms of its capacity to interpret its cause.

In sum, the model of micro-dynamics of sensemaking proposed here follows a forward-backward, recursive movement: SIA_0 allows SIP_{1+} to emerge from the undifferentiated field of experience. In turn, SIP_{1+} instantiates SIA_{1-} , which means it reshapes $pSIA_0$. The latter, on the one hand, allows SIP_{1+} to emerge, and, on the other hand, grounds the linkage between SIP_{1+} and E_0 , so that the infinite circle of semiosis can go on.

The Contextual Mind

Context as the version of the mind

According to the semiotic micro-genetic model presented in the previous section, the context is not something that is outside the mind. Rather, the context is the contingent shape of the semiotic field, therefore the form and the content of the experience. If one wants, one could say that the context is the inner mechanism through which psychological processes reproduce themselves over time, rather than an external condition governing how psychological processes adjust or are shaped. More in particular, the context is what in another work I defined as the *version of the mind* grounding the interpretation of the experience (Salvatore & Freda, 2011). A version of the mind is the set of scenarios that are salient in that instant in time

As has been said above, each scenario identifies a specific pattern of co-occurring signs. Therefore, the salience of a scenario – of a set of scenarios – constitutes a specific way of defining the condition of interpretability of the signs – namely the peculiar distribution of probability in accordance to which the following sign emerges. This point needs to be underlined. What this statement implies is that the



distribution of the co-occurrence among signs is not a homogeneous pattern. Rather, it is a set of distributions, each of them reflecting a specific form of life. For instance, take the statement “I don’t like it”. The association of this sign with the following sign “I do not care what you like” will be rather weak in the case of the scenario of, say, affective closeness (here and henceforth the small caps denote the scenario) and rather high in the case of the scenario of, say, conflict. In other terms, the answer “I do not care what you like” is more likely to be triggered as the following sign in the latter scenario than in the former. Thus, the probability of association among the two signs varies over scenarios and therefore the global probability is a combination of very many local distributions, each of them corresponding to a given scenario.

This leads a scenario being interpreted in terms of *versions of mind*. A collection of scenarios defines a peculiar dynamic pattern of probability of association among signs and therefore a peculiar condition of the semiotic field governing the way the interpretative trajectory unfolds. And this in the final analysis means that the mind works in different ways, defined locally and contingently, due to the set of scenarios that are salient in that situation of space and time. We are not always the same. Rather, depending on circumstances, we think and feel in different ways, each of them corresponding to one of the infinite version of mind we are – conflict, closeness, activeness, fulfilling, emptiness and so forth (and their combination).

Needless to say, scenarios are not clear-cut, sharply defined states of mind. Rather, they have different levels of generalization and fuzzy boundaries, resulting from their bottom-up nature – namely from the fact that they emerge as pattern of co-occurring signs experienced with a certain regularity. Thus, for instance, friendship is more general than closeness, yet the latter is not only contained in the former, being connected with other scenarios too (see figure 3). According to this perspective, the mind can be conceived of as a hyperdimensional space populated by an infinite set of scenarios. Similarly to what happens when the researcher selects a subset of dimensions among the ones emerging from a multidimensional analysis (i.e. a factorial analysis, multidimensional correspondence analysis), the subset of dimensions of the mental space that is salient at a given moment defines the patterns of scenarios in the foreground. This pattern is the version of mind involved at that given moment (Salvatore & Freda, 2011).



Closed forms indicates scenarios. Any point of the space included in a scenario indicates an occurrence.
The magnitude of the surface of the forms indicates the level of abstraction of the corresponding scenario

Figure 3 – The fuzziness of scenarios

A clear indication of the salience of versions of mind is provided by the way the mechanism of pertinentization works. A simple mental experiment can illustrate this. . Imagine showing the photo in figure 4 to several people, and asking them “please, tell me just what you see, without spending too much time thinking about it”.

Probably many will answer “the Eiffel tower”, but other might answer: “Paris”, “a very nice photo”, and the like. In brief, the following sign they select is constrained by the previous, but not determined by it – it will be the one that will emerge in accordance to the version of mind working as the attractor.

The above mental experiment shows two important points. Firstly, the reality provides a lot of opportunities – the version of mind is the semiotic attractor thanks to which a choice is made among them. In the final analysis, the version of mind consists of a form of *foregrounding* (meaning that all the rest is pushed into the background) – a modality of reducing the hyperdimensional space of mind so that a specific figure can emerge. Secondly, the mind does not work in an invariant way even at the level of the constitution of experience, namely when the perception is charged with meaning.



Incidentally, this is the reason projective tests work – what one sees in a Rorschach spot is an indication of one's version of mind. On the other hand, unlike the way of interpreting answers to projective tests, the idea of versions of mind means that the following signs associated to the stimuli do not mark stable characteristics of the person, but a specific component of her being salient at that specific moment, namely a contingent version of mind.



Figure 4 – The Eiffel Tower

The view of the mind in terms of an ongoing dynamics of versions is consistent with several models that conceive of psychological processes in a dialogical and relational way. Notions like object relationships (Klein, 1967), inner working model (Bowlby, 1969), voices (Hermans & Hermans-Konopka, 2010), positioning (Harrè & Gillett, 1994), personal culture (Valsiner, 2007) – just to cite few – entail the general idea that mind works in terms of its engagement in what is other-than-it. The micro-genetic model shares this basic, general idea, at the same time providing a way of modelling the mechanism thanks to which such engagement is carried out. Moreover,

in doing so, it allows a very central quality of such engagement to be recognised – it neither depends on what is inside the mind, nor does it depend on external conditions somehow introjected by the mind. Rather, it comes before the distinction between mind and world, grounding it. In fact, the interpretation of the context in terms of scenario models the constitution of experience and more in general psychological processes as a unique semiotic dynamics from which mind, self and therefore their complement: the world – emerges. Paraphrasing the Bible, in the beginning, there is dia-logos (namely, semiosis).

Some further remarks

Such a view of context could appear reductive, in the sense that it interprets the context as a local, contingent state, lacking its own ontological substance, but being a phenomenon emerging from the semiotic dynamics. Thus, one could also criticize such a view as intrapsychological because it negates the historical and material embeddedness of mind. In sum, it could seem that the striving to highlight the intimacy of the relation between context and mind ends paradoxically in the cancellation of the first term. Actually, this cancellation is only apparent. This is so for two basic reasons.

First, because the idea of psychological processes as a semiotic field dynamics entails that the local, contingent condition of the field is the precipitate of its whole history. The geography of scenarios defining the conditions of interpretability of signs as well as their shape and boundaries, are historical products – the sedimentation in a given instant of all previous mundane facts as they have come to be in reason of the semiotic dynamics they have shaped. Thus, the definition of the context in terms of contingency does not reduce the salience of the relationship between mind and world. Rather it provides a micro-genetic model for interpreting it, so as to avoid the pitfall of conceiving the context in a reified way, as something that is there and, as such, acts on the mind. Second, the idea of scenarios as the distribution of probability of connections among signs somehow “incorporates” the context within the semiotic dynamics. Yet this does not mean that the model is intra-psychological. On the contrary, it is radically externalist. This is so because it provides a modality of conceptualizing psychological processes because of their engagement with reality – as a matter of fact the field conditions of semiotic dynamics are the precipitate of the forms of life – yet without violating its operational closeness (Maturana & Varela, 1980), namely the fact that the mind is a semiotic dynamics and as such by definition it works only in semiotic terms,



as transformation/connections of signs with other signs, being in itself totally blind to “facts” and “events” supposedly populating the mundane reality. This is not the place to go into the philosophical and epistemological implications of this form of weakness of many contextual theories, as they assume in a more or less implicit way the world’s capacity to act directly on the mind. Intra-psychological theory finds in such weakness an easy target - see for example the critic of extensionalism that Fodor (1983) addresses to notions as frame, context, and mental model as proposed by cognitive psychologists such as Bruner (e.g. Bruner, 1990). Thus, the semiotic micro-genetic model proposed above is worth considering as a radical contextual model precisely because it shows how, at the basic level of the constitution of the experience, the world plays a role in psychological process even if (or rather, for the very reason that) such psychological process works in terms of operational closeness.

From a complementary point of view, one could add that the micro-genetic model concerns a dimension of psychological processes where the very distinction between subject and world is not yet given. In the final analysis, the constitution of the experience is just that: the emergence of the sense of subjectivity as engaging with something being out-of-it. Accordingly, the model proposed is intra-psychological in the sense that it is aimed at understanding the way the psychological subject is continuously constructed through the flow of experience. Yet it is radically contextual as well, because it assumes the construction of experience as the output of a semiotic dynamics embedded in and fed by the world.

The Reciprocal Inherency of Context and Self

The micro-genetic model of the constitution of the experience proposed above entails a specific view of the self and context, and their relationship. As we said above, self and context are not two separate entities, but two forms of experience emerging as complementary output from the same semiotic dynamics. I will devote this paragraph to making this view explicit.

From entities to emergent processes

As a premise, it is worth noting that the very fact that the micro-genetic model concerns the constitution of experience means that it considers the basic categories of psychological theory and experience— mind, context, self, meaning – as something that needs to be conceptualized in its making, rather than foundational conceptual building

blocks. If you like, the micro-genetic model is a kind of theory of the “psychological big bang”, namely a theory aimed at modelling how the psychological universe comes about. Differently from the physics theory, however, it is assumed that the psychological big bang of the constitution of experience has not occurred once, as starting point, but it is coextensive to the psychological experience it leads to emerge, in an ongoing, never ended recursive backward-forward dynamics.

Thus, according to the micro-genetic model, the basic psychological terms are not natural entities having the causal power of generating/modelling experience, but basic forms/contents – categories, indeed - of experience. In other words, there is not a self with a mind that generates experience through its interaction with a context in terms of meaning; rather, *experience is shaped in terms of* a self that has a mind interacting with a world. In the final analysis, notions like “mind”, “self”, “context”, are not primitive; rather, as the micro-genetic model presented above should have shown, they lend themselves to be conceived of as product of more fundamental psychological processes because of which they can be modelled in their emergence. This view is counterintuitive. Yet it is part of a perspective that is typical of the psychological theory. For instance, Barrett (2006) has proposed a similar view as concerns emotions. She has argued convincingly that emotions are not natural entities, as generally assumed by psychology and common sense, but forms of interpretation of the basic affective experience.

In the history of psychological science, there are several notable examples where psychologists have progressed from thinking about psychological phenomena as unitary faculties of the mind – entities, if you will – to thinking about them as emergent phenomena that vary with the immediate context (Barrett, 2006, p. 21).

It can be seen that this perspective, regardless of the specific conjectures proposed by the micro-genetic model, holds peculiar definitions of the basic psychological categories. In particular, for our interests here, self and context lend themselves to be conceived as hypergeneralized meaning – more precisely: SIA – emerging from the semiotic dynamics and at the same time grounding its unfolding.

Invariance and variation in the shaping of experience

The latter statement requires a premise to be clear. The semiotic dynamics can be seen as an ongoing process that has to establish invariance continuously and recursively upon the ever-changing flow of the field of experience. If it were not so, we



would be immersed in a perennial present time, where any instant would be incommensurable with the previous and the following. Actually, the very notion of previous and following, and therefore of time, would be not-given. Invariance, thus, is the fundamental epistemic structure of experience, the “stuff” of its constitutive valence: the duration. Needless to say, we experience variability – the fact that things happen, namely that they change: first they are not, then they are and then are not again. Yet such happenings can be experienced only because they have duration, namely they persist as invariant over instants of time. From a complementary point of view, they can be experienced as happenings, something that has a beginning and an end only in terms of a ground, namely in relation to something else having a more extended invariance.

Experience follows the same mode as the perception of movement. Like the latter, it requires the exercise of a mechanism of mutual constitution between variance and invariance. Movement is not absolute. It is given compared to a ground, a point of observation that has a condition of stillness compared to it. The job of the ground is to provide the basic persistence in terms of which the variations over time –the variations of positions in the case of movement, the body transformations in the more general case of semiotic dynamics – can be related to each other. On the other hand, such a relation – the sign by means of which it is carried out – is nothing but a new form of invariance extracted from the variation (or better: an abstractive transformation of the variation in a new form of invariance), the one in which the sense of the persistence of the objects over time (more in general of the continuity of the experience) is maintained.

In sum, the sense of the continuity of experience is provided by the transformation of the infinite set of occurrences in a single dynamic gestalt. One can see the same X simply because it is not the identical X. To see the same X means transforming a variation ($x_1 - x_2$) into a more abstract invariance (X). And this is performed in terms of the identification of a relation between x_1 and x_2 . Variation, therefore, is at the service of invariance – purely because invariance is the ongoing transformation of variation. The classical example of this view is provided by a river: we never see the same water, since the molecules are always different. Precisely for this reason – not despite it – we see the same thing – the river – persisting over time. The river emerges as the transformation of the ongoing variability of the molecules in a single, dynamic gestalt. Parmenide and Heraclitus need each other and collaborate with each other.

In brief, one is led to conceive of experience as emerging from a recursive process of mutual constitution of variation and invariance. Invariance is the ground thanks to which it is possible to experience variation. In turn, the experience of variation must needs be the definition of a dynamic gestalt that persists over time. In the final analysis, the experience of a variation is its transformation into an invariance.

Self as meta-stable set of scenarios

What we have said above paves the way to see the mutual constitution of self and context. Self and context have to be considered as very generalized SIA working as meta-stable ground enabling the unification of experience (Salvatore & Valsiner, in preparation). They are not entities, but embodied meanings, the projection of the flow of experience which allows the relationship to be defined, and therefore variation to be transformed into invariance. More specifically, we consider self and context as *grounds of grounds*, namely very generalized conditions of interpretability that become salient insofar as there is the need to handle ruptures in the steadiness of the semiotic dynamics. An example can help to make the latter claim clear.

Imagine a person engaged in a certain routine activity – e.g. she is reading the newspaper in front a cup of black coffee in her kitchen, just after waking up. The radio is broadcasting the breaking news in the background. Such a flow of experience unfolds in terms of a quite stable regularity. However, it is worth noticing that such regularity is not invariance, but a hyperdimensional flow of instant by instant variations that can however be transformed into invariance through its projection onto a partially stable set of scenarios (as defined in the previous paragraph). Therefore, the regularity is the phenomenological precipitate of the steadiness of the set of scenarios working as SIA and as such allowing the abductive construction of the sense of continuity of experience (Salvatore, 2012).

Now, imagine that something totally unexpected suddenly happens. For instance, a sharp, acute noise breaks the routine. As such it does not fit with the set of scenarios at stake. The dynamic steadiness is disrupted. How is it retrieved, so as to maintain the feeling of continuity? In circumstances like that, the person can experience the rupture just because she projects it on a more generalized ground: the self, in fact. By means of such projection, the variation of scenarios brought about by the disrupting event is assimilated – i.e. becomes part of a more generalized totality serving as a synthetic ground; in this mode, the rupture, and what happens before and after, as well as



around it, can be unified in a certain form of experience of continuity. In the final analysis, to experience a discontinuity is the basic form of constructing the continuity of experience, for the simple fact that the feeling of discontinuity entails an invariance which enables the discontinuity can be defined (Salvatore & Valsiner, in preparation).

In sum, the self is not a natural thing as such having its own properties by which one can explain the unitary nature of the experience and other psychological phenomena. Rather, it is a very basic, embodied hypergeneralized meaning working as the fundamental condition of interpretability of experience. And the same thesis can be extended to what are conceived of as transcendental qualities of subjectivity – intentionality and agency. Differently from ontological claims, I am proposing to consider them from the inside of the semiotic dynamics: as the basic products that at the same time play a grounding function for it. *Semiotic dynamics produces the self and uses it, and so reproduces itself as well as the latter over time.*

Dimensions of the contextuality of mind

These considerations lead us to distinguish different concepts within the generic notion of context. In particular, three aspects have to be considered. Each of them highlights the inherent mutual linkage between context and mind, constitutive of the psychological process and of the phenomenological experience of them.

First, the context has to be considered as the source of the constitution of the self. As we have observed, the self emerges as the required ground to encompass the variations in a dynamic gestalt. Thus, the context enters into play as the mundane source of such variation. I use the term *environment* to depict this component of semiotic dynamics. It is worth observing that even as environment, the context does not exist in itself, instead being the ongoing product of the coupling with semiotic dynamics. As a matter of fact, it enters into play only through the mediation and in terms of the body modifications mapping it – namely as *Umwelt* (von Uexküll, 1920/1926). In this sense, consistently with the lesson of phenomenology, environment is not the mere source of the bodily modification, but the whole causal process of energy-matter transformation that causes bodily modifications and that therefore allows the latter to be considered as the map of the former (Manzotti, 2006). In other words in contrast to the traditional view of a self-contained external reality made of discrete mundane entities that act on a separate body, I am proposing the idea of a single process where the capacity of the body to be affected is the way patterns of

environment are extracted/constructed, in the final analysis, brought into existence. Thus, the inherent mutuality of environment and body (here intended in the broad sense, as the basic source of psychological processes) lies in this: *the body causes the environment by means of being “effected” by it*. Incidentally, such a view entails a kind of “methodological” ontology. One has to assume the existence of the world outside there, sourcing the energy-matter contingency. Yet this assumption is made not as a metaphysical statement, but as an instrumental, epistemological device enabling the abductive understanding of the phenomenon at stake, in order to be able to model the constitution of the experience.

Second, the micro-genetic model entails the view of the context as scenario. As modelled above, the scenario is a certain distribution of probability of linkages among signs defining the boundary enabling the following sign to emerge. Also here, one can observe how context does not lend itself to be conceived of as a reality affecting/regulating the mind from the outside. This can be seen from two different standpoints. On the one hand, the scenario does not define or “push” the selection of the sign following. Rather, it works as a constraint limiting the potential infinite set of possible following signs. This means that the following sign emerges however from within the semiotic dynamics, as a product of its contingent state interpreting the constraint. This can also be expressed in the following way, which recalls what has already been said of the environment: the mind uses the reality’s constraints for performing its job. From a complementary point of view, one can see, as we have made clear above, that the scenario is before the distinction between mind and world - it is at the same time mind and world. It is world because the probability of distribution comprising it is the form of the world in which the person has participated, the way she has experienced it. There is a certain distribution among signs because practices are structured culturally in terms of scripts, routines, codes, enacted assumptions and so forth that shape life in terms of certain regularities. At the same time, the scenario is a constitutive, inherent component of the semiotic dynamics, what allows the flow of experience to come into being as experience.

Third, in the previous sections I have proposed a radically semiotic view of the self, as a hypergeneralized embodied meaning working as meta-stable ground of the interpretability of the flow of experience. From this thesis one can draw a further component/interpretation of the context that is worth considering: the context as *constitutive otherness* (Salvatore & Gennaro, 2012). This definition becomes clear if one considers that the boundary of the hypergeneralized SIA of which the self consists,



is *ipso facto* the definition of what-is-not-self. This is a logical but relevant consequence of the interpretation of the self in semiotic terms. Insofar as the self is conceived of as an entity, it would be possible to see it as a discrete self-contained phenomenon. In contrast, as highlighted above, meanings are constituted by oppositional linkage: X-opX. The emergence of the self, therefore, is also the constitution of the context as what is other-than-self. It is worth adding an important point: the self/otherness linkage is hierarchical. In fact, any boundary defining a scenario, is performed in terms of foreground/background differentiation. This means that the self emerges as a figure in the contrast with the otherness serving as the background the self is projected upon. One can find traces of this basic mechanism in the experience of the situation where an increase in variation (in terms of intensity, dynamicity, and so forth) occurs. In cases like that, when an affective reaction arises, – for instance one feels happy, surprised, anxious – the latter is experienced as a content – namely as something that one has/that is happening to oneself; rather than the very form of one's own self. One has an emotion, feels it, rather than being it. This means that the "I" which feels and the feeling being felt (the me in James terminology) make up each other. The self experiences itself as experience of being other than the otherness. In other words, the *experience of otherness* (i.e. the presence of the object for the subject) *feeds the otherness of the experience* (the recognition of the subject as something more and else compared to the experience and as such the source as well as the target of the experience) *that feeds it*, in a never-ending circle.

Conclusion

In the previous pages I have taken a contextual view of the mind, which sees experience - and more in general psychological processes- unfolding through and on the grounds of what is "outside" it. On the other hand, the image of the context as something outside the mind and as such affecting, framing, regulating, feeding it is unsatisfactory. It is a good metaphor, but nothing more – as a conceptual model it is quite weak and therefore it limits the development of a convincing, comprehensive model of the mind. In particular, it does not allow us to clarify what is meant specifically by the notion of "context", therefore to set a clear conceptual boundary between the mind and what is not mind, so as to enable their reciprocal engagement to be modelled.

I have proposed a micro-genetic model of the constitution of experience,

intending it as a contribution to a theory of the context. The semiotic micro-genetic model I have proposed grounds a general view of the context as inherently linked to the mind. Mind and context cannot be conceived as separate entities interacting with each other. Rather, they are forms of description, on different spatial-temporal scales, of the same basic dynamics of semiotization. The self and context are the same thing – two sides of the same coin

The view of context as immanently linked to psychological process has consequences in the way its role is seen. In the discussion above, I have shown that it entails the idea that persons shape experience through and in terms of the context – rather than affected/framed by the context. When a person feels or thinks, the field of experience in the state of mind of an instant emerges as the interpretative transformation of the state of the previous instant and the condition for the emergence of the following one. According to the semiotic micro-genetic model, it is thanks to the context that the state of mind of any instant is able to source the following state of mind as well as to make sense to the previous one. On the other hand, such ongoing, never-ending chain of interpretative transformations is what sustains the personal sense of being a self experiencing the world (Salvatore, 2012). This leads us to conclude that, in the final analysis, the context is the ground of the sense of continuity and fullness of the self and the experience of the world – what in previous work I proposed to define the *value-of-life of signs* (Salvatore & Freda, 2011). A rather radical change of perspective is involved here: it is not the ontological quality of the world that grounds the sense of continuity of the experience. Rather, it is the sense of continuity of the experience that feeds our embodied feeling of the ontological subsistence of the world. This is the way life does its job.

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