Semiotic Mechanisms and the Dialogicality of the Self:
Commentary on Carriere (2013), Minikes (2013), and Wall (2013)

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The semiotically mediated nature of human experience is being increasingly stressed in contemporary psychology. In this paper, the consistency of this axiomatic assumption with the type of communicational constructivism being proposed by dialogical models of selfhood processes is explored. A general semiotic conception if the dialogical self is suggested that characterizes it as a semiotic pre-adaptive system. It is described as a fuzzy control system that equilibrates operating field forces to delimitate a locus for meaning construction in immediate future. The contribution of the semiotic mechanisms proposed by Carriere (2013), Minikes (2013), and Wall (2013) for the operation of this pre-adaptive system is stressed and the nested operation of semiotic processing, sign convergence and semiotic switches within the pre-adaptive system is elaborated. Other possible ways through which those semiotic mechanisms enable us to specify the dynamically intertwined processes that constitute the dialogical self are also elaborated.

Keywords: dialogical self, semiotic mechanisms, complexity

INTRODUCTION

I first came in contact with the research presented by Carriere (2013), Minikes (2013), and Wall (2013) in this special issue during a short stay at Clark University early last year, and so it is a great pleasure to be now commenting on their work. At that time, I was enamored by the way their creative experimental situations allowed the elaboration of novel semiotic mechanisms that detailed and enriched our understanding of meaning construction processes in common intersubjective situations. I've found that their theoretical elaborations and experimental results were complementary and made important contributions to my own work on the dialogical self theory (DST; Bento, Salgado, & Cunha, 2012; Bento, Cunha, & Salgado, 2012; Salgado & Ferreira, 2005; Salgado, Ferreira, & Fraccascia, 2005).

On the basis of the semiotic tradition of the DST (Leiman, 2002; Shotter, 1993; Valsiner, 2002), the elaboration of diverse semiotic mechanisms can make a significant contribution to the DST in developing it into a complex, dynamic and developmental system (Bento, Salgado, & Cunha, 2012) since, as it was previously suggested, the dynamic processes that are considered to characterize the dialogical self (DS) are frequently described in an overgeneral way which constrains their explanatory value (Raggatt, 2010). However, the potential for significant elaborations of specific semiotic mechanisms to contribute to a more robust theory of the DS can be jeopardized by the

dispersion of semiotic mechanisms that are being elaborated by different authors (e.g. Abbey, 2004; Abbey & Falmagne, 2008; Cabell, 2010; Gillespie, 2008; Josephs & Valsiner, 1998; Salvatore, 2012; Valsiner, 2002, 2007; Zittoun, 2010) and also by Carriere (2013), Minikes (2013), and Wall (2013) in this special issue. In this context, the further integration of literature on the DS and on the semiotic mechanisms can be mutually enriching. On the one hand, the elaboration of semiotic mechanisms can bring to the DS a detail, complexity and dynamicity that the overgeneral descriptions of the DS have been unable to attain. On the other hand, the DS can provide the appropriate framework for the meaningful integration of the diversity of semiotic mechanisms that have been proposed and elaborated, and be helpful in identifying processes for which the underlying semiotic dynamics remain unclear. Let me therefore elaborate further on these issues while commenting on the contributions of Carriere (2013), Minikes (2013), and Wall (2013).

DIALOGISM, COMMUNICATIONAL CONSTRUCTIVISM, AND SEMIOTIC DYNAMICS

Dialogism emerged in the last decades as the project for an ontological and epistemological post-rationalist framework (see Linell, 2009; Marková, 2003a; Salgado & Gonçalves, 2006, for an extended discussion of its axiomatic assumptions). At its core, dialogism makes a radical assertion regarding the ontological value of the intersubjective relationship (Ferreira, Salgado, & Cunha, 2006; Jacques, 1991; Marková, 2003b) therefore endorsing a communicational constructivism (Linell, 2009). On this basis, dialogism constitutes a viable alternative to the current dichotomy between positivist and post-positivist focus on truth as a function of the properties psychological phenomena display as a result of their own nature and the social-linguistic critique that conceives psychological phenomena as social-discursive constructions (see Ferreira, Salgado, & Cunha, 2007, Marková, 2003a). In the first case, psychological domain is conceived through a "self-contained individualism" (Sampson, 1988) within which the self is considered to have primacy over the other (Carr, 2003) and constitutes the primary source of meaning. In the second case, the social-linguistic critique of social constructionism (Gergen, 1985, 2001) for example diffuses the individual subjectivity in the social realm. In both cases, an "exclusive separation" (Valsiner, 1998) between the individual and the social realms is operated that conceives them as mutually exclusive realms. In contrast, dialogism's communicational constructivism follows an "inclusive separation" orientation that leads to a focus on the "processes that separate and unite different parts of the same whole in simultaneous terms" (Valsiner, 1998, p. 15). The processual dynamicity of the boundary that simultaneously separates and unites Self and Other is considered to characterize psychological processes as substantial phenomena and therefore constitutes the appropriate locus of construction of psychological knowledge (Salgado & Ferreira, 2005; Salgado & Valsiner, 2010). Consequently, dialogism is focused on the transactional structure of communicational acts (Jacques, 1985) from which individuals' subjectivity is considered to emerge. As previously stated:

> The dialogical perspective is based on the fundamental assumption that human
> life is permanently an addressed existence. It therefore attributes a fundamental

role to the Other in the constitution of the I – human existence is co-existence or is not human. Therefore, difference – the radical asymmetry between any two persons -, simultaneity – the necessary co-presence of I and Other without which neither of them may exist -, and tension – emergent from the simultaneity of insoluble differences – become invaluable concepts for the dialogical project. [...] Relationship, elaborated upon those concepts, is conceived to be previous to (id)entity: there is no previous I and no previous Other to the relationship that makes them an I to an Other and an Other to an I. (Salgado, Ferreira, & Fraccascia, 2005, p. 13)

Within this dialogical triadic relationship of the communicational act - Self < > Other < > Communicational Object (see Marková, 2003a; Salgado & Ferreira, 2005; Bento, Cunha, & Salgado, 2012) - Self and Other are conceived as two distinct and competing agencies that address each other by anticipating both the world of the listener and of the communicational object. This implies that, in the communicational act, Self and Other not only address themselves, but also the "specific world of the listener" (Bakhtin, 1981, p. 282), and simultaneously the specific world of the communicational object. An immediate consequence of this conception is that the Self has no direct access to himself, the Other, or the world of external objects; it is always mediated by the co-relative position of the other components of the dialogical triadic relationship. Simultaneously, as the Self has access to himself, the Other and the world is always mediated. The dialogical triadic relationship also implies an exteriority of the Self (Bento, Cunha, & Salgado, 2012). The continuous reference of the dialogical relationship to the exterior of itself creates a tension between internal and external worlds and locates the Self within a specific relational and communicational context that constrains meaning making processes.

This radical conception of the constitutiveness of the intersubjective relationship has been noted to be distinguishable of other relational and intersubjective perspectives in psychology (Marková, 2003b; Salvatore & Gennaro, 2012). As Salvatore and Gennaro (2012) point out "otherness is regarded not only as the reference or the measure of the subject, but as its very sustain, what provides the stuff of which the self is made" (p. 16) in the form of cultural semiotic resources. Such cultural semiotic resources, constitute the presence and expression of the Other within the Self and they therefore constitute its components and regulate their dynamics (Valsiner, 2007). This therefore highlights the need for the dynamicity of semiotic mechanisms unfolding in specific everyday life communicational situations to be explored, as they constitute the processes that bring individuals' subjectivity to emerge.

The papers from Carriere (2013), Minikes (2013), and Wall (2013), constitute notable examples of the semiotic dialogical perspective I've been describing. Whether in the specific situation of constructing a shared perspective (Carriere, 2013), in dealing with the loss of a significant other (Wall, 2013), or with unexpected embarrassment (Minikes, 2013), their papers are prolific in revealing the intricacies involved in the semiotically mediated interaction between Self and Other within a specific communicational situation. They are also significant in highlighting the role of the

intersubjective ambivalence and tension mentioned above to the emergence of specific semiotic mechanisms (see also Abbey, 2004, 2006; Abbey & Valsiner, 2005). Together, their contributions suggest that within a specific communicational situation, Self and Other constitute a symbolic communicational space within which diverse referential processes become dynamically intertwined. Consistently with the dialogical triadic relationship elaborated above, these referential processes are simultaneously self-referential (in that the individuals refer to their internal worlds), hetero-referential (in that the individuals address the world of their interlocutor), and co-referential (as they both negotiate the meaning of the specific communicational situation and of the communicational objects, whether they are the inkblots (Carriere, 2013), the belongings of a deceased significant other (Wall, 2013), or the racist lyrics (Minikes, 2013). Interestingly, their work reveals how the signs vehiculated in these diverse referential processes are mutually interdependent and interact as the communicational situations unfold. Specifically, they strikingly exemplify how each communicational act simultaneously carries a statement about the Self (self-reference), about the Other (hetero-reference), and about the communicational object (co-reference); and how the Self presents itself in function of the way the Other is imagined and anticipated, and how this influences the meanings attributed to the communicational objects (see also Jacques, 1991; Valsiner, 2006; see Figure 1).
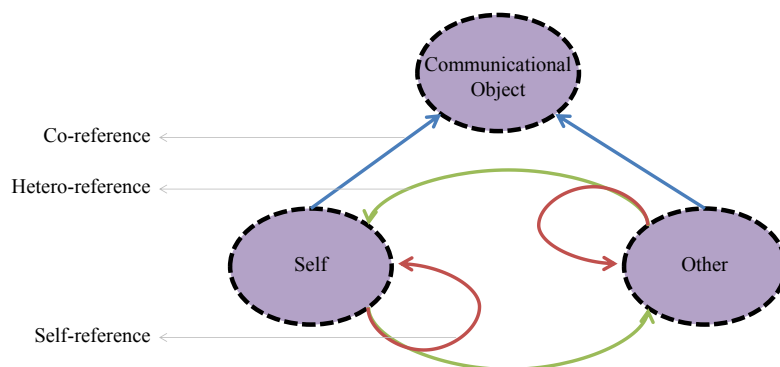

Figure 1. Triadic communicational structure.

In Carriere's (2013) paper we can clearly see how differences in co-referential processes between Self and Other (the inkblots are interpreted in different ways) function as a kind of short-circuit for communicational processes obligating the Self to assume a specific evaluative perspective towards the Other. In this process, some participants position themselves as "curious" persons (self-reference) and correlatively construct the other in positive terms, as having a "sense of humor" for example (hetero-reference; Participant 13), while other participants position themselves as "being wrong" (self-reference) and construct the Other as implicitly being "better than me" (hetero-reference; Participant 29). All the examples described by Carriere (2013) seem to reveal that the interpretation of the short-circuit in co-referential processes is dependent on the construction that participants make of the Other in relation to themselves.

The same processes are observable in the contributions of Minikes (2013) and Wall (2013). Participant L, in Minikes' (2013) study, constructs the racist song as "just a song" (co-reference) and positions herself as "comforting" (self-reference) towards Minikes that is correlatively perceived as a "victim" (hetero-reference). Participant 1, in Wall's (2013) study, uses the ring that her grandfather gave her (co-reference) to feel "in the presence" and implicitly "protected" and "loved" (self-reference) by their "protecting" and "loving" grandparents (hetero-reference).

Additionally to their contributions exemplifying the general communicational dynamics inherent to selfhood, they also reveal some particular semiotic mechanisms that further specify selfhood mechanisms. For me to explore this point, let me first present a general picture of selfhood processes that emerges from this general dialogical framework.

THE DIALOGICAL SELF AS PRE-ADAPTIVE SYSTEM

As previous discussion of the dynamic mutual interdependence of referential processes within the communicational situation may have already implied, dialogism conceives selfhood as a complex dynamic system of dialogically intertwined processes. In fact, within dialogism, selfhood tends to be conceived as a dialogical construction of the semiotic regulatory mechanisms (Leiman, 2002; Valsiner, 2002, 2007) that emerge between self-positions. Self-positions are components of the self-system that express a particular perspective towards others and the world (Hermans, Kempen, & Van Loon, 1993; Hermans, 2003). Such expressive texture of self-positions emerges through their constitution as semiotic fields (Valsiner, 2007) that aggregate phenomenological contents. In this sense, self-positions are semiotically constituted across the flow of experiential time through the semiotically mediated interaction of the person with him or herself, others and the world. Such semiotic fields infuse self-positions with a particular way of evaluating and signifying incoming personal experiences that locate the person within a given perspective towards internal and external worlds. At this basic level of the sequence of self-positions that emerge across the experiential time (see Figure 3), the dialogical regulatory mechanisms that emerge between the self-positions are conditioned by (1) the characteristics of the experiential stimuli, (2) the semiotic regulatory mechanisms that emerged between the present self-position and the previous one, and (3) the characteristics of the semiotic field that constitutes the active self-position in the present moment. At each present moment across the flow of self-positions the mutual influence of bottom-up (1), same level (2), and top-down (3) processes anticipates and delimitates the locus of meaning construction for the immediate future. This constant process of pre-adaptation (Valsiner, 2005) is therefore a system of nested processes that operate in order to organize the systems' state within the communicational situation in the immediate future. As the contributions to this special issue suggest, ambiguity (Carriere, 2013; Minikes, 2013) and novelty (Wall, 2013) of the incoming experiential stimuli from the communicational situation constitute important aspects that may leave more or less degrees of freedom for meaning construction in the immediate future. Simultaneously, the emergence of stability or instability bounded (Valsiner, 2002), tension maintenance (Abbey &

Falmagne, 2008), or circumvention (Josephs & Valsiner, 1998) forms of semiotic regulatory mechanisms in the immediate past also constrain the degrees of freedom for meaning construction in the immediate future. For example, the deployment of a circumvention regulatory mechanism that intends to resume previous self-positions' trajectory after perturbation may be considered likely to generate a certain stability favoring the emergence in the immediate future of a self-position consistent with the self-positions that had emerged previously to the perturbation. In a similar way, tension maintenance forms of semiotic regulation that maintain opposite self-positions bounded together across time may also restrict the possibilities for meaning construction in the future and promote stability of those same self-positions across time. Inversely, instability bounded forms of semiotic regulatory mechanisms that promote a diversification of the involved self-positions may be likely to increase the degrees of freedom for meaning construction in the immediate future. Concurrently with these bottom-up processes, the characteristics of the semiotic field associated with each self-position also influence the degrees of freedom for meaning construction in the immediate future. Semiotic fields associated with self-positions may reveal more vague and flexible or more defined and rigid characteristics. Two extreme types of self-positions are particularly significant. Structurally ambiguous (Gregg, 1995), fuzzy (Morioka, 2007), or undifferentiated semiotic fields may generate significant degrees of freedom for meaning construction in the immediate future leaving ample possibilities for diverse self-positions to emerge and meaning pathways to be followed. The semiotic multipotentiality associated with these self-positions may lead them to play an important role as gyratory platforms changing the developmental trajectory of previous self-positions into significantly different directions. Due to their unfixed semiotic configuration these self-positions may operate as inhibitors or promoters (Cabell, 2010) of other more dominant self-positions depending on the concurrent processes taking place within the self system. Such dominant self-positions have been typically described within the psychotherapeutic literature (Hermans, 2006; Lysaker & Lysaker, 2002, 2012) and are characterized by rigid and internally coherent semiotic fields that establish strict, clear cut distinctions that delimitate restrictive possibilities for meaning construction in the immediate future.

Microgenetically, the nested operation of the processes that constitute the pre-adaptive system and regulate the inhibition and promotion of some self-position in detriment of others in experiential time generates a hyperproduction and redundancy of semiotic regulatory mechanisms that emerge between specific self-positions (Valsiner, 2001, 2008). Such overexpression of regulatory mechanisms across experiential time comes to constitute diverse forms of catalytic processes (Cabell, 2010; Beckstead, Cabell, & Valsiner, 2009; Valsiner, 2002; see Figure 2).

A. Autocatalytic processes
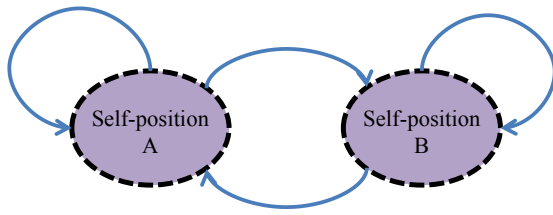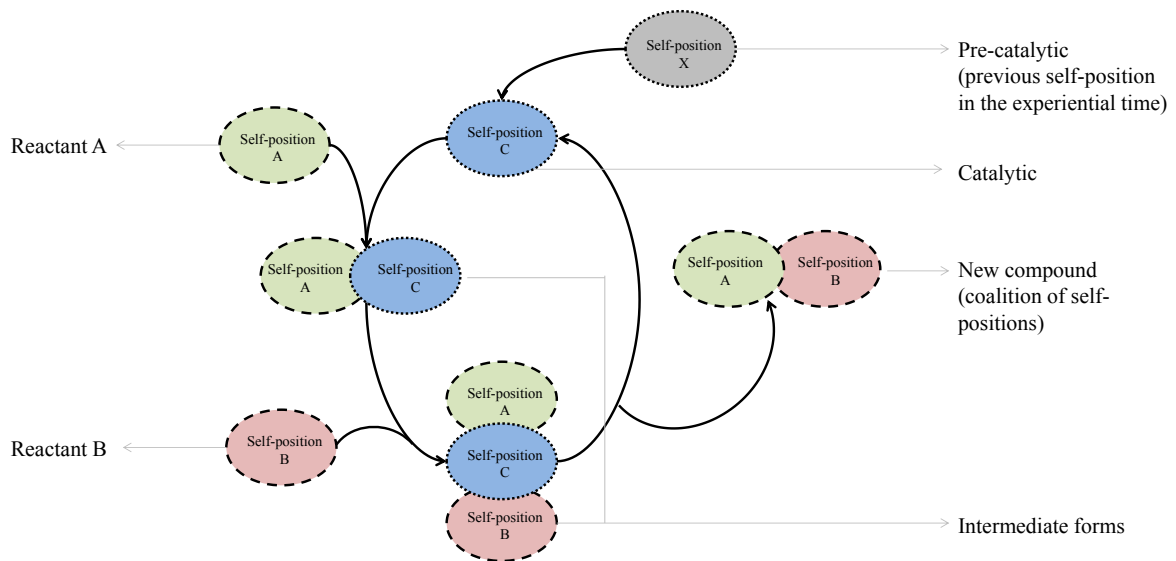

B. Catalytic processes

Figure 2. Catalytic processes (adapted from Valsiner, 2002).

Either through the intervention of reactant self-positions (B in Figure 2) or through self-recursivity (A in Figure 1) such catalytic processes set the stage for the emergence of higher level coalitions of self-positions (Hermans, 2003, 2006) that constitute relatively stable functional units. Catalytic processes have been considered to be at the origin of increasing complexity in biological systems (Eigen & Schuster, 1977, 1978) and system wide parallel operation of diverse catalytic networks was proposed to generate self-organizing behavior of neurocognitive (Cariani, 2001; Carpenter & Davia, 2006) and linguistic (Thibault, 2011) systems at different integrated scales of space and time. Catalytic semiotic processes are here suggested to differentiate the self-system into diverse levels of self-organization and to regulate the aggregation of self-positions into functionally unified regions of the self field (Figure 3).
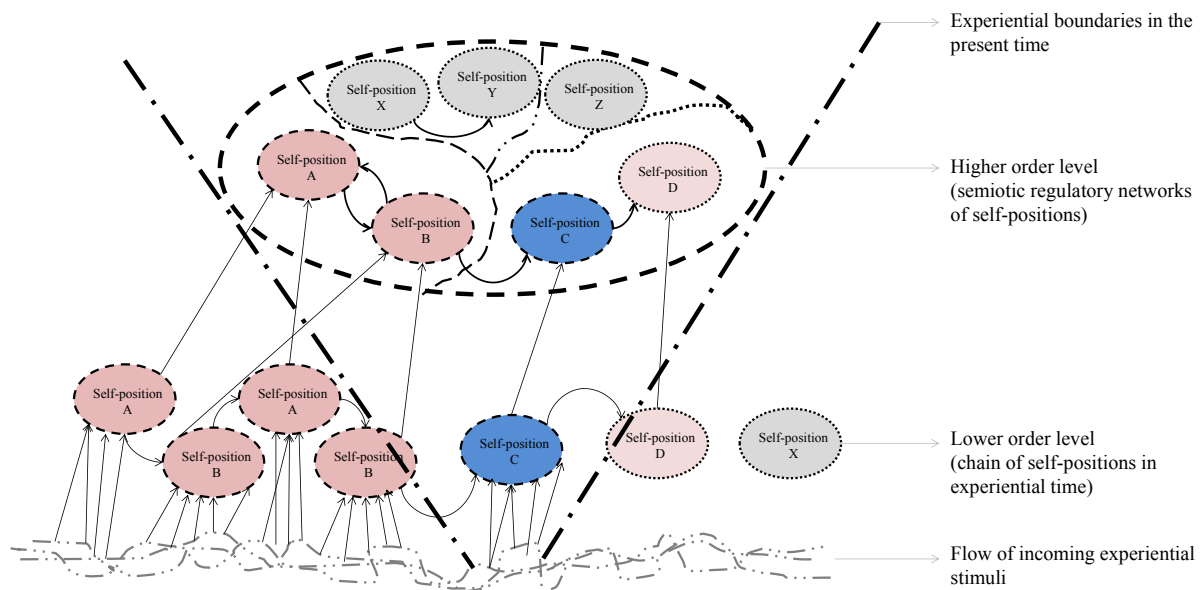
Figure 3. Hierarchical differentiation and integration in the DS.

Such functionally unified coalitions of self-positions may be conceived as semiotic regulatory networks of self-positions that constrain the operation of the pre-adaptive system through downward regulation (see Andersen, Emmerche, Finnemann, & Christiansen, 2000). They provide a meaning context generalized within the self-system for the interpretation of incoming experiential stimuli and the operation of the pre-adaptive system. It is generalized in the sense that it is of a different, higher order, scale of space and time than the pre-adaptive system which therefore enables it to create a pre-existent meaning context for the meanings that are about to emerge in the immediate future. In such a way, these semiotic regulatory networks may inhibit or promote certain self-positions at the lower level of operation of the self, and through that, they may regulate catalytic processes, reinforcing them or generating ruptures and consequent transition for an alternative trajectory of self-positions. Feedback loops between levels of organization of the self-system (Figure 4) maintain a general integration and coherence of the self-system.
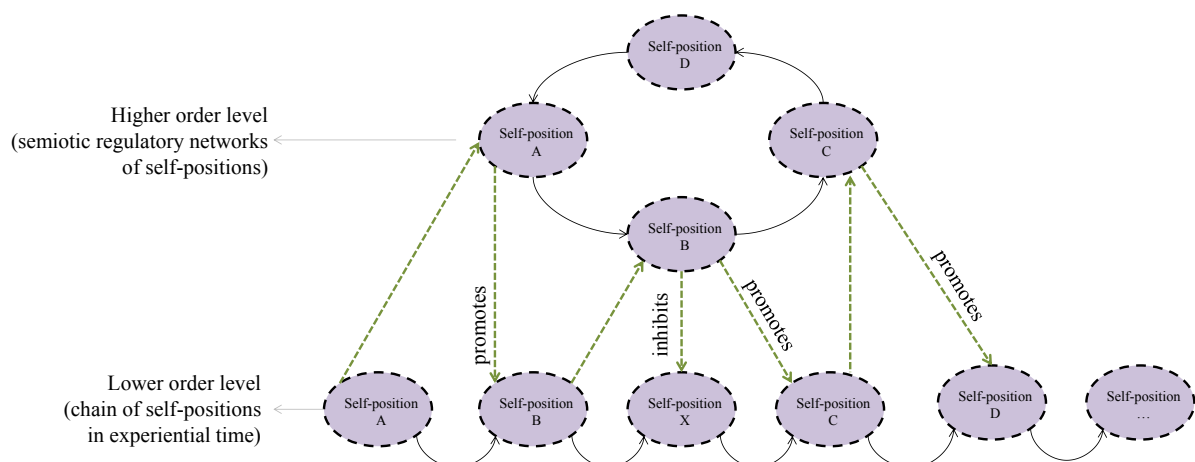

Figure 4. Feedback loops between levels of organization of the self system.

Due to the influence of semiotic regulatory networks on the lower level of organization of the self system, the pre-adaptive system is regulated not only by the processes already pinpointed: (1) the characteristics of the experiential stimuli, (2) the semiotic regulatory mechanisms that emerged between the present self-position and the previous one, and (3) the characteristics of the semiotic field that constitutes the present self-position, but also by (4) the influence of the semiotic regulatory networks at higher levels of organization of the self system. Through the concurrent operation of these semiotic processes, the pre-adaptive system generates a locus of meaning construction for the immediate future (Valsiner, 2002). Such locus of meaning construction defines a subset of signs that emerge as acceptable for valuating and signifying personal experiences from the integrated operation of the self-system (see Figure 5).
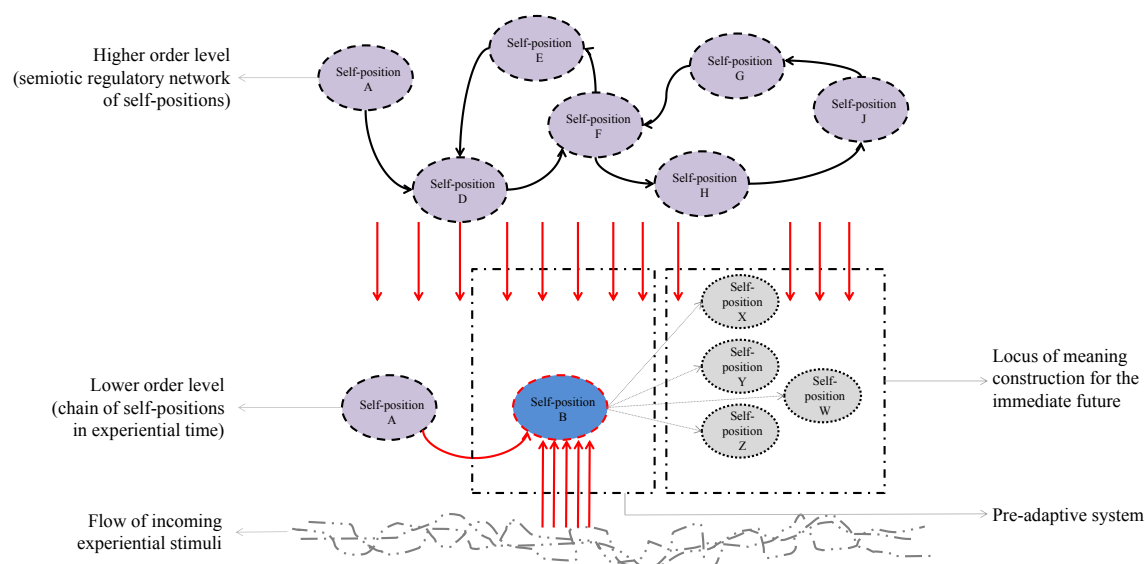

Figure 5. Pre-adaptive system.

(Red lines represent the processes that constitute the pre-adaptive system)

The pre-adaptive system can be conceived as fuzzy control system (Zadeh, 1965, 1973) with five input variables, each one of them defined as a fuzzy set with two extreme values, that refer to the operation of the pre-adaptive system:
- Characteristics of incoming stimuli:
    1. Ambiguity (precision)
    2. Novelty (unoriginality)
- Characteristics of semiotic regulatory mechanism in the immediate past:
    3. Dominance (submissiveness)
- Characteristics of semiotic field of active self-position:
    4. Flexibility (rigidity)
- Influence of semiotic regulatory networks in lower level of organization:

5. Influence (ineffectiveness)

Two output variables, also defined as fuzzy sets, describe the characteristics of the locus of meaning construction:
1. Extension (narrowness)
2. Diversity (uniformeness)

Within this fuzzy control system, the relations between input variables and output variables can stated by a set of logical IF – THEN rules. The set of rules that determines maximum extension and diversity of the locus of meaning construction can be stated in the following terms:

> **IF** incoming stimuli **IS** highly ambiguous **AND** highly novel
> **AND** semiotic regulatory mechanism **IS** highly submissive
> **AND** semiotic field **IS** highly flexible
> **AND** regulatory network **IS** highly ineffective
> **THEN** locus of meaning construction **IS** highly extensive **AND** highly diversified

In contrast, the rules that determine maximum narrowness and uniformness of the locus of meaning construction can be stated in the following terms:

> **IF** incoming stimuli **IS** highly precise **AND** highly unoriginal
> **AND** semiotic regulatory mechanism **IS** highly dominant
> **AND** semiotic field **IS** highly rigid
> **AND** regulatory network **IS** highly influential
> **THEN** locus of meaning construction **IS** highly narrow **AND** highly uniform

Although the rules that govern the operation of the pre-adaptive system were presented separately and in extreme forms, it should be noted that they operate concurrently and may be characterized by intermediate values therefore generating in nuanced states of the locus of meaning construction. This highlights the high dynamicity of the pre-adaptive system in its ability to promote system wide adaptation to the continuously changing circumstances of the communicational space and, through that, to maintain the system organization relatively stable without significant disorganization in face of those changes.

SEMIOTIC ORGANIZATION OF THE SELF-SYSTEM AND THE SEMIOTIC MECHANISMS
A mutually enriching dialogue can be established between the previous semiotic elaboration of the DS system and the specific semiotic mechanisms proposed by Carriere (2013), Minikes (2013), and Wall (2013). The semiotic mechanisms they pinpoint can help us to further specify and elaborate the operation of the semiotic pre-adaptive system, while it provides a general framework that highlights their simultaneity and nested functioning.

Phases of semiotic processing in the pre-adaptive system

Carriere (2013) suggests that semiotic processing unfolds across three consecutive steps: (1) semiotic acquisition, (2) semiotic assessing, and (3) semiotic construction that identify different moments in the operation of the pre-adaptive system previously to the emergence of a self-position in the next immediate moment. The emergence of a self-position in the immediate future realizes a possibility that stood in a potential state within the constraints of the locus of meaning construction. Although the locus of meaning construction delimitates a range of acceptable pathways, only one of those pathways is actually realized which dissolves the previous locus of meaning construction and activates the pre-adaptive system again in preparation for the next immediate future. Such realization of one possibility from within the possibilities delimitated by the locus of meaning construction is, as Carriere (2013) suggests, an outcome of the previous semiotic processing regulated by the pre-adaptive system. As he puts it, these outputs assume the form of a descriptor of the individual or image on which data is being collected. They are assumptions until more data can be collected which verify the reality of the assumption. The final outcomes of the activity of the pre-adaptive system correspond therefore to the actualization of a self-position that locates the individual within a given perspective towards him or herself, others and the world. Such perspective carries with it a set of prescriptions or assumptions that inform individuals' behavior. This is the outcome of the regulating activity of the pre-adaptive system that starts with its engagement in "semiotic acquisition" (Carriere, 2013). As I have elaborated above, this is a process dependent on the characteristics of incoming experiential stimuli, particularly novelty and ambiguity, as it is dependent on the other field forces that constitute the pre-adaptive system at a given moment (see Beckstead, Cabell, & Valsiner, 2009). The relative balance of the characteristics of the incoming stimuli and of the remaining field forces (previous semiotic regulation mechanism, influence of semiotic regulatory networks, and the characteristics of the semiotic field associated with the active self-position) may determine whether a general view of the incoming stimuli is imposed on the activity of the pre-adaptive system (macro semiotic acquisition in Carriere's terms), or particular aspects are assimilated by the remaining field forces (micro semiotic acquisition in Carriere's terms). The rules of the fuzzy control system suggested before can be further specified to describe the relative influence of incoming stimuli and remaining field forces in driving the pre-adaptive system engagement in semiotic acquisition. In the case of a macro-oriented semiotic acquisition these rules can be stated as follows:

> **IF** incoming stimuli **IS** highly precise **AND** highly novel
> **AND** semiotic regulatory mechanism **IS** highly submissive
> **AND** semiotic field **IS** highly flexible
> **AND** regulatory network **IS** highly ineffective
> **THEN** semiotic acquisition **IS** highly macro-oriented

In the case of a micro-oriented semiotic acquisition these rules can be stated as follows:

> **IF** incoming stimuli **IS** highly ambiguous **AND** highly unoriginal
> **AND** semiotic regulatory mechanism **IS** highly dominant

AND semiotic field **IS** highly rigid
AND regulatory network **IS** highly influential
THEN semiotic acquisition **IS** highly micro-oriented

This initial moment has important consequences for the next moments in semiotic processing that Carriere (2013) elaborates: comprehension and incorporation. A highly macro-oriented semiotic acquisition can impose on the activity of the pre-adaptive system signs and meanings inconsistent with the ones promoted by the other field forces. This can generate an internal inconsistency in the pre-adaptive system accompanied by a sense of tension during comprehension of previously acquired signs. This can be observed in some of Carriere's participants agitation in discovering that their interpretation of the inkblots was different from the one's of the other participants. From this perspective, a macro-oriented semiotic acquisition can impose a semiotic blocker on the pre-adaptive system generating the need for circumvention strategies to be deployed (Minikes, 2013) or, alternatively, a reorganization of the field forces for the incorporation of previously acquired signs. In contrast, a micro-oriented semiotic acquisition makes acquired signs amenable to interpretations consistent with the ones favored the other field forces creating an appropriate context within the pre-adaptive system for the transference of signifiers to occur as is described by Wall (2013). In this sense, it seems that the mechanisms elaborated by Minikes (2013) and Wall (2013) are helpful in highlighting the interindividual differences (as Carriere puts it) found by Carriere (2013).

Semiotic regulatory networks as semiotic switches
Using Carriere's terms (2013), Minikes (2013) experimental situation was devised to explore semiotic comprehension and incorporation after a macro-oriented form of semiotic acquisition. The experiential stimuli was devised to be highly novel and highly precise since a third person was supposed to interrupt (highly novel) and to transmit to the researcher that he was in trouble due to the use of racist materials in his experiments (highly unexpected again but also highly precise). In this way, Minikes (2013) created a situation in which participants had to deploy semiotic strategies destined to overcome emotion-laden semiotic blockers. In face of our previous suggestion that different forms of semiotic acquisition (Carriere, 2013) impose different pressures on the pre-adaptive system comprehension and incorporation of previously acquired signs, it is interesting to observe that a decrease in precision (Participant R), therefore promoting a more micro-oriented semiotic acquisition, seemed to have mostly removed the need to do that, if it was not for the researchers' insistence.

Minikes (2013) suggests that in these situations, when semiotic blockers appear, persons have to deploy circumvention strategies that are determined by semiotic switches. It is his suggestion that such semiotic switches that inform the kind of circumvention strategy emerge from a process of information gathering (or semiotic acquisition in Carriere's terms) that starts as semiotic blockers appear. I would contend that semiotic blockers appear in the context of a global pre-adaptive process that is already taking place (Carriere's proposal seems consistent with this). These blockers, when they appear, are subject to a network of already occurring super-ordinate

semiotic processes that determine the appropriate action of the pre-adaptive system. Minikes (2013) proposal of semiotic switches is interesting here because it suggests that in face of blockers, semiotic processes in the pre-adaptive system switch on or off some signs in order for a specific semiotic construction to be deployed. In this sense, his notion seems to suggest that higher-order processes operate in order for the person to adapt to the perturbation the blocker has generated. Consistently with the previous elaboration of the pre-adaptive system, I would hypothesize that the semiotic regulatory networks may, under certain conditions, determine the cessation or activation of semiotic processes in lower levels of organization of the self-system. It is implied that, under the pressure caused by the perturbation of semiotic blockers, the pre-adaptive system becomes increasingly dependent on the intervention of higher order structures of organization of the self system like semiotic regulatory networks. They seem particularly suitable for such role because they correspond to more stable and familiar forms of semiotic organization. They also operate in a more extended space and time within the self-system than the semiotic blockers therefore allowing them to continue to influence the pre-adaptive system after the circumvention strategy was deployed. Consequently, in face of semiotic blockers, semiotic regulatory networks will switch off competing semiotic processes (deriving from the previous semiotic regulation mechanism or the characteristics of the active self-position semiotic field) and lead persons' to deploy circumvention strategies consistent with their more usual perspectives towards the world. If highly ineffective semiotic regulatory networks are involved, networks unable to operate as switches, persons' would likely be unable to adapt to the situation.

Sign convergence and the operation of the pre-adaptive system
In contrast with Minikes' (2013) experimental situation, Wall's (2013) stimulates a more micro-oriented process of at directly or indirectly we've all experienced (and therefore is unoriginal) and requests them to elaborate on the reaction they would have (which makes it ambiguous). In this sense, although their experimental situations are quite contrasting, they seem to semiotically acquire as the interview confronts the participants with a situation the correspond to the two types of semiotic acquisition described by Carriere (2013) and they therefore allow us to observe diverse forms of semiotic assessment in face of contrasting semiotic acquisition forms. In Wall's (2013) situation, no perturbation is introduced in the operation of the pre-adaptive system which diminishes the potential influence of the characteristics of the incoming experiential stimuli and leaves the operation of the pre-adaptive system increasingly dependent on the "intra-psychological forces" (as Wall phrases it; the semiotic field of the active self-position, the previous semiotic regulatory mechanism, and the influence of the semiotic regulatory network, in the previously described system). In this case, incoming experiential stimuli are brought into a psychological context strongly determined by the "intra-psychological forces" which will provide the appropriate framework for the attribution of meaning to those stimuli. Because no internal tension is generated in the pre-adaptive system, we may hypothesize that it will operate mostly on the basis of the lower level semiotic processes (previous semiotic regulatory mechanism and characteristics of the semiotic field of the active self-position) which will lead incoming experiential stimuli to be interpreted in ways consistent with the

meanings present in the pre-adaptive system in the near past. Wall's (2013) elaboration of the mechanism of sign-convergence is helpful precisely in explaining how such interpretation of incoming experiential stimuli in light of meanings brought to the present by the pre-adaptive system occurs. Generally, Wall (2013) proposes that the convergence of signs occurs through the transference of signifiers resulting in the aggregation of diverse signified experiential elements under the same signifier. As her results exemplify, in face of the loss of a significant other, personal objects like "apples", "rings", "butterflies" become symbols of the "presence", or "love", or "protection" of the lost significant other. This process is a basic and fundamental one for the operation of the pre-adaptive system as it explains generally how incoming experiential stimuli are included in homology processes between them and the meanings present in the pre-adaptive system that enable it to be constituted as an adaptive system in the first place. Without such homology processes, i.e., the comparison of the pre-existent and incoming signs, the pre-adaptive system would be unable to determine which action to take as incoming experiential stimuli would have no particular meaning for it because there would be no way for the pre-adaptive system to compare them against a frame of reference.

On more specific terms, the type of semiotic mechanism elaborated by Wall (2013) is also important in exploring both the semiotic constitution of self-positions and the transformations that their associated semiotic fields undergo across time. As I have briefly mentioned above, I'm conceiving self-positions as coherent semiotic groups of personal meanings that are aggregated across developmental time (see Bento, Cunha, & Salgado, 2012 and Bento, Salgado, & Cunha, 2012 for a more detailed account of this issue) and, together convey a specific perspective over internal and external worlds. Such clustering of personal meanings in a specific perspective is enabled by the type of sign convergence processes that Wall (2013) describes. As he suggests, "externalization" of the signs "allows one to connect the intra-psychological world with one's environment" therefore accounting for the expressive characteristics of self-positions. However, sign convergence also allows us to comprehend how diverse experiential stimuli, i.e., diverse signified experiential elements, enable similar signifiers and self-positions. This is important in observing that often seemingly different experiential elements activate similar personal positionings towards the world.

Is has been observed that self-positions are, themselves, dynamic components of the self-system and display transformations across time (e.g. Hermans, 2006). Self-positions may become increasingly dominant or change from dominant to submissive, therefore transforming their potential to entertain specific types of regulatory mechanisms with other self-positions in the self system; some particular components of a self-position may also become increasingly autonomous constituting themselves as a singular self-position. These transformations in self-positions across time may be conceived as changes in the characteristics and contents of their semiotic fields. In this sense, the type of transference of signifiers described by Wall (2013) is helpful in understanding how, across time, increasing amounts of signs converge into a coherent semiotic field making a self-position increasingly dominant through the concentration of significant amounts of diverse personal experiences. Similar processes can be hypothesized to

promote the convergence of signs in different zones of the semiotic field of a self-position promoting its differentiation until their autonomization into two different self-positions. The type of sign convergence mechanisms through transference of signifiers descried by Wall (2013) can therefore account for diverse processes that characterize the operation of the self-system.

CONCLUDING POINTS
The idea that human beings live a semiotically mediated existence is becoming an increasingly emphasized axiomatic postulate in contemporaneous psychology. There is, however, the risk of it becoming an axiom empty of any substantial content without the proper elaboration of the specific semiotic mechanisms through which the mind is constituted and self-organizes across different levels of increasing complexity. Carriere (2013), Minikes (2013), and Wall (2013), in specifying different semiotic mechanisms and in connecting them to diverse communicational situations, make significant contributions towards such an endeavor. Although this specificity is most welcome and stimulating, it also reveals the need for the diverse semiotic mechanisms being proposed to be included in general models of the mind's systemic self-organization processes. Dialogical models seem particularly suitable to provide such integrative models. As they emphasize the importance of the dialogical relations between the diverse components of the self-system to the flexible adaptation of human beings to the changing conditions of their internal and external worlds, they lead us to consider psychological phenomena in terms of their temporally dependent complexity. Due to this dynamic conception of psychological phenomena, they seem amenable to the detailed, nested operation of the semiotic mechanisms.

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