COMMENTARY

On Interaction Analysis and Dialogical Perspective: Emergent Patterns of Order and Relational Agency

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Abstract This essay proposes to contribute with a continuing discussion on Grossen's paper (2010) establishing a link between the analysis of interactions and dialogical perspective using what I call simplication-for-approaching-complexity (SFAC). This approach conceives of dialogical dynamics as a dynamic system of relationship that construct patterns. Moreover, these emergent patterns allow inferring the features of dialogical partners as relational agencies. The specific characteristics of the relational agency at any moment in dialogue can be inferred from the analysis of the specific pattern of order achieved by the historical development of dialogue. This proposal is illustrated by the analysis of mother-infant interactions.

Keywords Simplication-for-approaching-complexity (SFAC) ·
Dynamic systems perspective · Self-organization · Patterns of order · Relational agency

Michèle Grossen (2010) admirably discusses some of the major dilemmas inherent to the relationship between theoretical assumptions and methodological requirements. She focuses on the analysis of social interaction considering the dialogical perspective as the theoretical basis. She highlights the importance and widespread utilization of the study of interaction in psychology and related fields. Grossen distinguishes—following Marková (2003, 2006)—two opposing general conceptions of interaction—the factorial and the dialogical. Moreover, the dialogical conception is not united, as Grossen stresses, it depends on different status attributed to the dialogue and on the specific topic of study focalized.

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Dynamics of Dialogue

Grossen's paper adopts a conception of dialogue based on Bakhtin's (1981, 1986) thinking and Marková's elaboration on the topic. Based on dialogicality, or the "the capacity of the human mind to conceive, create, and communicate about realities in terms of the "Alter" (Marková, 2003, p. 85), Grossen pointed out two major aspects, both regarding the dynamicity of the dialogue, stem from the perspective of dialogicality referenced above. The first is the deep compromise with human function as a process of change, instead of relying on stability, as does the great majority of theories of social knowledge. The other refers to the nature of this process as based on antinomies that result in tensions, contradictions and conflicts. I here focus on the first one of these two major aspects to analyze the emergent characteristics of the dialogical process regarding the construction of the partners' relationship through time (we can say, communication or external dialogue) and the characteristic of the partners involved, focusing on the construction process of meaning-making.

Possible Dialogues

Rommetveit (1990) stated that in order to initiate a dialogue it is necessary that the partners share something as a topic to talk about. In order to initiate a dialogue there has to be a link between the partners. This link functions as a first step or as a first condition that relies on a mutual perspective shared by the partners that becomes an object of joint attention. The task is to establish a dialogue between the empirical features of partners' interactions that occurs in a concrete here and now time and space and the dynamics of dialogue, conceived as dialogicality, that carries others times and spaces implied by the particular dynamic inherent to partners' symbolic quality.

Here I apply a perspective that I call simplication-for-approaching-complexity (SFAC) as a methodological theoretical artifact (inspired by van Geert, 2003). Firstly, the dynamics of complex phenomenon, as dialogue, is the result of many dimensions that are almost impossible to enumerate all at once; secondly, we need not to take in consideration all of these dimension at the same time in order to approach the comprehension of its dynamics. It is important to make clear that this approach does not contain a realistic ontological character but rather an a-ontological one. According with this perspective, the characteristics described by a theoretical model need not be attributed to an intrinsic and essential property of the phenomenon but as researchers' devices in order to describe and grasp fundamental features of the phenomenon (Maturana & Varela, 1980).

The reasoning that supports my proposal is the following: instead of approaching the concept of dialogicality in all its complexity at once—for instance, multivoiced-ness and heteroglossia of partners' functioning, the process of integration of the context and inclusion of tools as constructions in the dialogue—we need to put in an successive order, (to choose some aspects and leave others outside), for approaching and studying distinct aspects of dialogicality of the dialogue.

To illustrate my proposal I suggest concentrating on the analysis of interaction aiming to "escaping monologization" of the dialogue focusing on the process of the

co-construction of meaning. In this way it becomes possible to establish a dialogue between dialogicality as a theoretical conception and the empirical study of interaction. Hence I will conceive of interactions as comprising a system of relationship that evolves over time.

Co-Construction of Meaning and Interactions as System of Relationships

The first task is to define the system as composed by the inter-action of both partners. Secondly the research needs to focus on the process of change of the system instead of the contribution of each partner at each moment analyzed. As Grossen points out:

> "At an operational level, reformulation was defined as a three phase sequence: (1) a source (the reformulated discourse); (2) a reformulation marker, which introduces the reformulation and may be either a metadiscursive clause such as you told me that, you mentioned that, etc. or a reformulation marker such as in other words, namely, well, thus, etc.; (3) the reformulation itself, which can be either a self reformulation or an other-reformulation. The interactional construction of meaning was then analyzed by comparing the source with the reformulation" (p. 8).

My proposal is that instead of comparing the source with the reformulation— looking at each step of partners' exchange—we need

(1)   to analyze a longer sample of exchanges through time and
(2)   to compare how the partners' exchanges assume, for example, different patterns of mutual agreement, mutual disagreement or mutual unsteadiness of agreement/ disagreement at different moments of the development of the dialogue.
(3)   After that, the next step is to examine how long these patterns are maintained over time or disappear over time.

I propose that this way of analyzing the interactions focuses on the emergent product of both partners—the above suggested patterns—and does not separate each partner's contribution, therefore focuses on "dialogization" of meaning construction rather than "monologization" of it.

Considering the scheme just described above, the emergent meaning is inferred from the patterns of order of the system of interaction assumed by the partners' exchanges (for example, mutual agreement, mutual disagreement or mutual unsteadiness of agreement/ disagreement). These patterns results from the mutual constraints of partners' inter-action through time. Let us first consider some basic concepts, supporting the present ideas that steams from the dynamic systems perspective (DSP).

Self-Organization and Emergent Patterns of Order

DSP is devoted to the study of processes of change and development and focuses of systems of relationships over time (Fogel et al. 2006; Lauro-Grotto et al. 2009; Lewis, 2000; Valsiner, 2006; van Geert, 2003). This perspective has the

characteristic of being applied to different domains of knowledge (biology, physics, medicine, weather, sociology, etc, and psychology too). It has being criticized mainly for relying only on overt behaviors and to assume, consequently, a mechanical perspective of interactions, considering the social sciences and the study of interactions. Nevertheless, some of the concepts proposed by DSP can help us to understand and analyze relationships as the mutual contributions of partners instead of the contribution of each partner in a sequence. I will concentrate on two of them: self-organization and patterns of order.

The basic idea of self-organization entails a focus on how of a system of relationships emerges from the natural fluctuation (or instabilities). Such form emergence happens in irreversible time, and the elements that compose the system change their roles through the transforming mutual influence of the ones over the others. As a consequence we can follow the process of change occurring in the relationship organization. This process makes emerge pattern of order of the exchanges between the elements and, therefore, new relationship patterns emerge. These new patterns exhibit discernible order because characteristically they repeat through time. These organization patterns are, therefore, discernible and can be observed because they maintain, during longer periods of time, repeating their pattern of interaction and, through this way they exhibit stability (or quasi-stability).

In addition to the characteristics above described, it is fundamentally important to highlight how the successive patterns of order, emergent from the dynamic of the system, exhibit new qualities that distinguish them from each other over time. These new qualities characterize the total system of relationships and, therefore, the qualities of each of the elements that compose the system change as well too.

Emergent Patterns of Order and a Relational Agency

Having summarized the concepts of self-organization and emergent patterns of order I come back to the analysis of interaction from a perspective of dialogicality theory considering, therefore, "the capacity of the human mind to conceive, create, and communicate about realities in terms of the "Alter" (Marková, 2003, p. 85).

The next point of my proposal suggest the following two steps reasoning (or assumptions): (a) dialogicality, as above conceived, refers to the human capacity of a relational agency in which the world, myself and the other are deeply embedded on a self-others perennial movement that happens in real life contexts; (b) the specific characteristics of the relational agency at any moment in dialogue can be inferred from the analysis of the specific pattern of order achieved by the development of dialogue through time, in other words, its historical development. As a consequence of these two points I am proposing that the other three characteristic of dialogicality enumerated by Grossen as posing crucial difficulty in analyzing the interactions (the multivoicedness and heteroglossia of the dialogue, the context as a dialogical construction, and tools as a non-human agency) are possible to be approached through the analysis of the characteristics of a agency. I suggest that we can approach some of the characteristics of this dialogical partner as agent as the ones referred by from the analysis of the patterns of order that results from the self-

organization of the system of relationship that make up the history of the dialogue. I clarify this proposal through examples from mother-infant interactions.

Lessons from the Beginning: Early Mother-Infant Interactions

The transformative and creative power of mother-infant dialogues relies on the strength of joint action, elaborated since the first moments of infant's earlier life. Thus, the mother, using her symbolic-language capacities and tools, interpret the infant's actions and the infant acts disposing of his/her inherent apparatus; both interactants-partners are deeply involved in constructing a way to communicate each-other and their actions become meaningful jointly actions through their use through time. By this way they co-construct their history as meaningful co-construction (Lyra, 2007, Lyra & Bertau, 2008).

Based on that, the system composed by dyadic mother-infant reciprocal actions adjust their actions to each other, through a process of self-organization that leads to construct a first step of dyadic meaning construction. This first dialogical emergent pattern of order I call *establishment*. This pattern of order corresponds to a first step for initiate a dialogue; to initiate any dialogue we need to *establish* a first shared understanding between partners (Rommetveit, 1990). So, at the beginning of life mother and infants work towards establishing a minimal relational achievement between them; regarding normal-health babies, we can think the establishment of a mutual gaze, in face-to-face interactions, or a joint attention toward an object, considering the mother-object-infant exchanges.

Following this first pattern of organization, the historical development of the mother-infant process of communication leads the dyadic dialogue towards a new emergent pattern of order, *extension*. During extension, the previously established mutual understanding serves now as a "background" against which the dyad can negotiate partners' new actions and elaborate extended exchanges, such as "figures". Considering the mutual gaze as shared engagement, the dyad can then exchange smiles, vocalizations, and so forth, in an extended way, for instance in face-to-face exchanges. Another example is a dyad that has previously established joint attention to an object as shared comprehension; it can then negotiate arm and hand movements towards the object, composing extended exchanges of many turn-takings.

Finally another pattern of order emerges. It is characterized by *abbreviation* of the dialogical interactions. According with this new pattern, the exchanges are of short duration with a typical partner adjustment, which is quickly, easily and smoothly performed in a small number of turn-takings. The elements of dyadic exchanges, extensively negotiated and elaborated during the period of extension, now appear in an abbreviated or condensed fashion. Regarding face-to-face dialogues, the dyad can simply exchange a mutual gaze or mutual gaze together with some previously negotiated and shared actions (smiles, vocalizations, etc). Another example is the swift, easy and smooth adjustment of the shared joint attention given by the dyad to an object, followed by the mother offering the object to the infant and the infant grasping and holding it immediately (Lyra, 2007; Lyra & Bertau, 2008; Lyra & Winegar, 1997).

I have suggested earlier that we can approach some of the characteristics of a dialogical partner conceived from the theory of dialogicality—multivoicedness and

heteroglossia of the dialogical partner and also the construction of the context and the tools as non-human agency as emergent from dialogue—from the analysis of the patterns of order resulted from the self-organization of the system of relationship that make up the history of the dialogue.

The last one of these patterns, abbreviation, allows the researcher to infer three characteristics of an emergent dialogical partner, with distinguished traces of a process of differentiation that characterizes a dialogical agent, in comparison with the characteristics exhibited during the extension pattern of order. These three characteristics are: (1) the infant's capacity to abstract a format and to use it in other dialogical events; (2) the seeds of infant self's positioning differentiation and (3) the new quality of the shared partners' engagement that suggests that the dyad has a new functional capacity to dialogue.

The abbreviated format Extension transformed into abbreviations allows to recognize a dialogical format. This format is separated and distinguished from the content of each dialogical event, the actual actions exchanged. This permits the dyad to face novelty maintaining the dialogue. Thus, we can say that the abbreviated format is abstracted from the actual actions used in each abbreviated dialogue and generalized to other dialogues occurring in dyadic exchanges. In these conditions, we find a high predictability of the format but a freedom and indeterminacy of partners' choice of what specific actions will comprise each specific exchange. The degree of this freedom is constrained by the historical constructions due to each dyad.

The role reversal activity The seeds of the partners' positioning differentiation vis-à-vis the other in the dialogue is emerging in the abbreviated dialogues. In the give-and-take exchanges the mother occupy the "offering" position and the baby the "taking" position that starts to be exchangeable in abbreviation; the dyad elaborates the seeds of partners' role reversal in the give-and-take mother-infant games, as the examples have shown above.

The shared totality The new developmental pathway that abbreviation exhibits suggests that the dyad unveils a new functional capacity. Abbreviation analyzed from the perspective of the learning process that is now happen inform that the quality of the learning process occurring in abbreviated dialogues is different from the one occurring during the extension period; if the abbreviated format is distinguished from its content in a communicative message it means that what was learned by the dyad corresponds to a learned product that has a holistic character, the abbreviated format. Thus this format comprises a totality that encapsulates the historically constructed learned actions allowing maintenance of the dialogue and variability of the content (the actions used to actualize each time this format). Novelty is easier to integrate here because the abbreviated format maintains partners' already constructed and known engagement. During the extension pattern, a slow sequence of novelty introduction, almost one-by-one, in order to get the infant's attention and interest, maintaining the dialogue and achieving learning is not necessary anymore; a point-by-point contingent learning process moved towards the fast, smooth and flexible introduction of novelty inside the dialogue. For doing so

the dyad needs a degree of abstraction of this format, detached from the exact actions that comprises each abbreviated event and generalized for other dialogical exchanges.

The above description of these characteristic has the function in this commentary to exemplify how it is possible to explore the features of the patterns of order, emergent from a dialogical dynamics, with the purpose of inferring attributes that belong, at the same time, to the relational dialogue (the interaction) and to each partner that composes the dialogue. In my example, each partner is exhibiting aspects of him/her as a partner that suggest an agent of his own actions and positions vis-à-vis his/her partner.

Conclusion

Three major conclusions results from my complementation of Grossen's (2010) arguments. The first, and more basic, is that the dialogue between dialogicality theory and the empirical analysis of interactions needs to accept a principle of simplication-for-approaching-complexity (SFAC). The secondly, points out that DSP can help understanding the dynamics of the dialogue and its constructive aspect. The third argument states that DSP needs to be complemented by the analysis of the characteristics of the pattern of order emerged from this dynamics. This analysis requires dissecting different dimensions of a relational agency exhibited by the dialogical partner in the real context of partners' history of interactions.

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