Ontogenesis versus Morphogenesis
Towards an Anti-Realist Model of the Constitution of Society

Abstract

This article firstly criticizes Margaret Archer's Morphogenetic Approach for being indecisive about the realist notion of emergence it proposes as well as for her inadequate account of structural conditioning. It is argued that critical realists' conceptualizations of emergence cannot but lead to inconsistencies about the adequate placement of agents as parts of emergent entities. The inconsistencies to which these conceptualizations lead necessitate an anti-realist model of the constitution of societies which takes into account that social structures are existentially dependent upon ideational elaboration. This alternative anti-realist theoretical perspective is provided by Ontogenesis, within the framework of which the realists' idea of the 'necessary and internal relations' give their place to the ontological pervasiveness of the culturally shared imaginary schemata. Archer's denial of a collective synchronic impact to social forms is implied in her analysis of morphogenetic cycles, according to which, structural elaboration post-dates social interaction; and this denial is also expressed in this very idea of emergent structures. Instead, for Ontogenesis, social forms are synchronically dependent on the collective impact of the differently socially placed agents, who have different interests and material resources, and whose interaction only becomes meaningful when drawing on these culturally shared imaginary schemata.

Keywords: Ontogenesis, Morphogenesis, Margaret Archer, Social Anti-Realism, Social Imaginary.

Introduction

Critical realism is a highly influential contemporary theoretical movement, according to which – in general terms – the basic nomological scheme of a realist philosophy of the natural sciences can also be of *explanatory* significance for the theorizing in the social sciences. For many critical realists, *emergent* entities have *emergent* properties and powers which are irreducible to the properties of the constituent components of these entities. Different powers that correspond to different emergent entities (which belong to the various strata of natural reality) interact in open systems, thus producing different actual conjunctures of events – which may (always fallibly) or may not be experienced by the scientific agency. Thus, the distinction among the real, the actual and the perceived theoretically contributes to the idea of the stratification of the world. The application of this scheme to the social domain entails a modest social realism which denies functionalistic determinations and which, more or less, depending on the author, *partially* takes into account the idea that social forms (structures and institutions) are dependent on the agents' meaningful action which takes place within a context of shared meanings and ideas.

This article aims at theoretically defending this idea of the context/concept/activity-dependence of social forms. In doing so, it critically draws on the work of probably the most influential critical realist in sociological circles, namely Margaret Archer, whose main contribution to this discussion is the *Morphogenetic approach* (1995), which intends to provide the sociological theoretical counterpart of Bhaskar's philosophy of science. Archer (1995) has rightly remarked that Roy Bhaskar (1979), the founding father of critical realism, has favoured the tenet of context/concept/activity-dependence more than a coherent social realism would allow. Indeed, if social agents can *collectively* transform the structures which are supposed to condition, at an individual level, their activities and their projects, then social realists find themselves in the embarrassing situation of having to admit that the most crucial element for the exegesis of social life is not structural conditioning, but agents' meaningful *socio-cultural interaction*.

Archer defends the subjective/objective distinction by arguing that structure is considered to be the objective part and agency the subjective part of the social domain. Structure and agency are presented as having different ontological statuses, which means that we have to deal with two distinct kinds of causes. For Archer, the fact that we have to analyse two different powers should lead us to examine their causal interplay, that is, how they condition each other at different time periods and in an open system (where experimental closure is not possible) such as the social world. In this sense, mental states, as well as thoughts, belong to the 'first-person ontology' (Archer,2003:36), while 'objective' structures to the 'third-person ontology'. In the social domain, we face different ontological forms with different emergent properties, forms that are analytically distinct and interact mutually in *the same story of naturalism*.

Social structures, cultural structures and agents exert distinguishable forms of power on each other, and this interplay of different causes is mediated by the capacity of human agency to reflect (always fallibly and through the form of internal conversations) upon vested

interests, objective opportunity costs and benefits which are embedded in the different situational logics corresponding to different structural slots, which thus directionally guide agents' projects and, therefore, their actions.

Although this causal interplay is continuous, we can analytically distinguish among the three subsequent temporal stages, i.e. structural conditioning, social interaction and social elaboration, which are the different phases of this temporal causal interplay. With the help of these distinctions, Archer has contributed to the protection of the realist idea of structural autonomy by offering two additional defensive walls: 1) the idea that social elaboration postdates social interaction which is responsible for the transformation (morphogenesis) or the sustainment (morphostasis) of the *emerged* social structures, and 2) the idea that 'society is that which nobody wants, in the form in which they encounter it, for it is an unintended consequence' (Archer,1995:165). The message of this rectified social realism is that collectivities are unable to proceed to a self-instituting, since the unintended results of present actions will condition others in the future, but not those who perform the present-day actions – which are conditioned by the unintentional emergent result of past actions. The unintended structure only *emerges* when different collectivities emerge and, thus, we cannot participate in a *synchronic* structural transformation.

Since Archer's account of emergence is at the heart of her conceptualization of the mutual conditioning of structures and agents, any anti-realist approach first should tackle Archer's definition of emergence. Of course, structural conditioning is a common lay experience, and it should not be excluded from socio-theoretical accounts. Critical realists are right to underline this conditioning and, for this reason, before commenting upon the basic ideas of ontogenesis, I should make some remarks on the terms under which a coherent anti-realist approach can take into account this very 'fact' of our common experience.

However, this article does not intend to criticise the whole of Archer's work. Instead, my main objective is to draw on the criticism of the basic tenets of the morphogenetic approach in order to analyse what I counterpose to them, namely *social ontogenesis* – which, as a term, denotes the radical (both synchronic and diachronic) self-creation of society, and which, though an anti-realist theory[1], does not ignore the theoretical importance of the materiality of social life.

Terminological remarks alone can lead to misinterpretations, and Archer (1995) does not cast light on the difference between ontogenesis and morphogenesis when she describes the emergence of agency and of the social actor from our basic constitution as humans in terms of *phylogenesis* and *ontogenesis* (Archer,1995:255). These terms have gained a prominent status in developmental biology, developmental psychology, environmental research, haematology, embryology and other scientific fields, where they are used in ways whose common ground is the creation, self-creation and/or development of a species or an individual that belongs to it; but what I think is really missing from social theory is a re-

[1] The term 'anti-realism' is not widespread in social theory, but one can find many philosophers of science who define themselves as anti-realists. For Chalmers (2009:92), ontological anti-realism denotes a philosophical tradition which denies the objectivity and the determinate truth-value of ontological arguments.

definition of these terms from within a socio-theoretical context and in a socio-theoretical vocabulary. For social ontogenesis, the orienting of structural change can only be conceived of as emanating from ideational elaboration, that is, from the irreducible imaginative conduct of discourse, for which what I call 'imaginary world-views' are both the necessary categorical background and the 'subject matter' of critical reflection. Different *views* of social *being (on)* are created *(genesis)* in a process where reflective imagination is always present in agents' internal and external dialogues.

Structure, agency and the exegetical value of the concept of emergence

As a critical realist, Archer argues for structural (relative) autonomy and for the emergence of social structure. 'Emergence' here means causal 'irreducibility' to lower-level properties and powers; and 'relative autonomy' *should* mean a level of existential independence of social structures from meaningful *present* agential activity and interaction.

At first glance, these two ideas are compatible, in the sense that social structures *diachronically emerge* from past socio-cultural interactions that take place among the lower-level parts (agents), and after this *diachronic* result, social structures and their properties of constraining and enablement cannot *synchronically* be reduced to, explained in terms of and transformed by present agential activity. Yet, the combination of the idea of the relative autonomy of social forms and the idea of the 'human component' that *constitutes* these emergent and real social structures becomes problematic if we fully grasp the implications of Bhaskar and Archer's idea of the context/concept/activity-dependence of social structures – that is, of the idea that social structures are somehow dependent on individual or collective concepts, ideas and actions. This is an important – though underdeveloped in critical realist circles – idea, which this article intends to develop in order to show what it really entails for both realist and antirealist approaches.

In fact, as I shall show, one can identify in Archer's work two different scenarios of how structure and agency relate to each other. On the one hand, structures and agents (should) have different ontologies, as well as different modes of existence and modes of causality; and thus, social scientists should trace the temporal interplay of two different modes of causality that are actualized in different phases of each of the continuous morphogenetic cycles; emergence is unintelligible in this scenario since structure and agency should be considered existentially distinct; theory/activity-dependence here *could be* identified with the one causal moment of this temporal dialectic between structure and agency – that is, the moment of the agential exertion of reflexivity. On the other hand, agents are the human components in an emergentist account of the social domain, where higher-level structures and properties emerge from past causal interactions of the parts (agents), but are not causally reducible to or transformable by present causal agential interactions; higher-level forms also exert intrinsic causes on their constituent parts (the case of downward causation). Theory/activity-dependence here refers to the fact that the whole is existentially dependent on its parts: 'no parts, no structure'.

These two scenarios, as I shall further explain, are incompatible with each other. For at some points we face a causal interplay of two (existentially) distinct entities, and at some other points we face an emergentist story of whole/parts relations. But both scenarios become problematic if we also consider another assumption which is adopted by Archer: as I will argue, if human agency is the only efficient cause in the social domain, as both Bhaskar and Archer maintain, and if social forms are existentially dependent on agents' individual and/or collective concepts, ideas and actions, then it is very difficult for one to defend the autonomy and the causal efficacy of social structures. I will critically draw on these inconsistencies in Archer's work in order to account for the ontogenetic constitution of society, which is premised on the *real* implications of the context/concept/activity-dependence of social forms. Let us now examine these two scenarios in detail:

i) Structural autonomy and the idea of context/concept/activity-dependence – scenario no1

In her effort to defend the relative autonomy of social structures, Margaret Archer argues that the principle 'no people; no society' should not imply 'this society; because of these people here present'. This means that the idea that structures are concept/activity-dependent does not mean that people can *intentionally* transform structures whenever they wish – as if structures did not have their own distinct reality and causal effect. For Archer, social structures have properties 'whose differentiating features are relative endurance, natural necessity and the possession of causal powers' (Archer,1995:167); these properties are relational, and their relationality is internal and necessary [2]. In this article, I argue that it can be assumed that social structures are relatively enduring without allowing for ideas like natural necessity and causality.

Archer also argues that agents are the only efficient causes in social life (Archer, 1995:195). Therefore, one can object that since agents are both the mediators – because of their agential reflexivity (Archer,2003) – of the interplay among structure, culture, and agency *and* the only efficient cause, the statement 'no people, no society' can imply 'these social forms here present; dependent on these people here present'. And, for this reason, it seems highly inconsistent to claim, like Archer, on the one hand, that 'emergent structures' cannot exist without agents and are concept/activity-dependent and, on the other hand, that they are ontologically distinct.

As claimed above, Archer argues for the analytical distinction between structure and agency through a two-fold manoeuvre: by attributing an 'unintended' character to the notion of emergence – the new emergent social forms do not conform to anyone's thoughts, actions and goals – and by introducing into realism a second temporal distinction; now, not only do structures pre-exist social interaction, but also social elaboration (the final stage, where

[2] Here, it should be clear that, for Archer, not all 'unintended consequences' constitute internal and necessary relations and, therefore, not all 'unintended consequences' lead to emergent properties. For simplicity's sake, I have excluded the other kinds of 'unintended consequences' from my analysis, for this exclusion makes no crucial difference to my critique of Archer's account.

emergence occurs) and human interaction (the middle stage) take place at different times, that is, at different phases of each morphogenetic cycle.

Yet, for Archer, 'to stress temporal separability is never to challenge the activity-dependence of structures: it is only, but very usefully, to specify whose activities they depend upon and when.' (Archer,1995:66) And Archer claims that the analytical distinction among and the temporal separability of these three stages (structural conditioning, social interaction and social elaboration) are equally important assumptions for the examination and explanation of the causal interplay through time between structure and agency. But it is clear, I think, that Archer uses this idea of temporal separability in order to support her idea of the distinct ontology and causal efficacy of social structures. After all, as she claims, 'analytical dualism is possible due to temporality.' (Archer,1995:183)

What follows in this section is an analysis meant to show that, instead of arguing for a modest context/concept/activity-dependence of social structures, as she claims to be doing, what Archer really aims to do through her two interrelated contributions to realist social theory (i.e. the additional temporal distinction and the unintended character of emergence) is to get rid of this interpretivist remnant of Bhaskar's work (1979) which renders social structures malleable (see, King:1999a).

Now, if ontologies are grande theories which aim at conceptualizing the main constituents of a specific domain, describing abstract, holistic, unobservable and 'theoretical' entities that are *assumed to exist* in this domain, then social ontologies are fallible accounts of the whole/parts relations, that is, of the relations among holistic totalities (i.e., structures, culture and institutions) and social individuals. With the help of the idea of emergence, critical realists aim at emphasizing that social structures (higher-level entities) are irreducible to the thoughts and actions of social agents (parts). And interpretivists, like Anthony King, have tried to argue that, although social structures are irreducible to the thoughts and actions of one agent, they can be reduced to – or, be theoretically decomposed into – the totality of social agents and the relations among them. But a coherent anti-realism, which can critically draw on interpretivism and constructionism, should argue that the idea of the context/concept/activity-dependence of social structures contradicts the idea of emergence and simultaneously denies the exegetical relevance of the term 'reduction', since material structures *do* exist in the social domain; they are not shadowy entities that can be reduced as epiphenomena. And although they cannot be *reduced* to collective interaction, they are existentially dependent on it.

The idea that Archer, on the one hand, argues that social structures are independent of what agents think of them and, on the other hand, adopts the tenet of the concept/activity-dependence of social forms was first offered by King (1999b), who criticizes Archer by accusing her morphogenetic approach of becoming metaphysical, because she talks of entities that exist independently of what is, according to King, the only constituent element of society, that is, people. Defending the interpretivist tradition, King (1999b) criticizes Archer on the basis that her critique of interpretivism takes for granted that meanings are generated only by present-day individuals, which means that it deprives this tradition of its emphasis on the

historicity of the generation of ideas. The unfortunate result of these assumptions, according to King (1999b), is Archer's argument that interpretivism attempts to reduce social structure to the interpretations and interactions of living individuals; and, in this way, Archer aims at defending three assumptions hostile to interpretivism: the structure's autonomy, its pre-existence and its causal power. At this point, King (1999b) explains that the first two assumptions should not be considered separable; for 'if something is temporally pre-existent it must necessarily also be autonomous for it cannot pre-exist something upon which it is dependent.' (King,1999b:206) In any case, for King, social forms can be reduced to the totality of past and present actions, and we should not ontologize the past, as Archer does.

In a reply to King (1999b), Archer (2000) insists that 'social structure is the resultant that nobody ever wants in exactly its current form, which is precisely what fosters continuing morphogenesis.' (Archer,2000:469) Archer, at this point, emphasizes that, throughout the process of social transformation or reproduction, there is a constant conflict of vested interests as different groups have different aspirations. Thus, Archer poses the interesting question of the heterogeneous constitution of the collectivity.

The problem here is that both reductionists and critical realists share similar naturalist nomological conceptions of causality, and they both start from the premise that agency is the only efficient cause in the social domain. Then, the question that remains is whether higher-level entities, structures and properties can be reduced to the causal interaction that takes place among agents or whether emergence should rather imply the irreducibility of these entities, structures and properties to this interaction (see, Sawyer,2001). However, theory/activity-*dependence should* mean neither the *theory/activity-reducibility* of social forms nor the *emergence* of social forms.

What is important to infer from this dialogue is that King (1999b) erroneously concedes that pre-existence entails autonomy. Ontological anti-realism should argue that social structures do (pre-)exist as material settings; they have an ontological status, they are not reducible to collectivities, and most of the time they pre-exist interaction related to their existence. But even if they pre-exist one's decisions and actions, even if one individual alone cannot change them in a satisfying way, and even if some social structures seem quite resistant to massive pressures for modification, it is not self-contradictory to claim that they are *dependent* on *synchronic collective interaction* (which Archer denies).

Society *is* indeed *something more* than the sum total of the actions and the relationships of social individuals, and this means that human relationships and interactions do not exhaust the *cosmology* of the social domain, which also includes material settings (structures), institutions and culture. But this 'something more' does not entail the naturalist idea of emergence. Our ontology for the social studies should start from the distinction among the holistic societal entities, such as culture, institutions and structures, and then move to the distinction between, on the one hand, these holistic, abstract and theoretical macro-entities and, on the other, social agents and their groups, which are micro-entities. Therefore, I would, in principle, agree with Archer's effort to analytically distinguish among these ontological 'objects'. But why should we impose naturalist imageries of emergence on social theorizing?

Instead, I argue that the components of material structures are the various material objects and resources, but do not include the agents; the components of the different institutions are the various roles and rules, but do not include the agents; and the components of culture are the various normative orientations and imaginary world-views, but do not include the agents. This means that social ontological perspectives on whole/parts relations cannot be described in terms of the emergence of macro-states from socio-cultural interaction, as I shall further explain in the next section. Society, from an ontological point of view, presents the unprecedented existential form according to which both kinds of social forms (social systems[3] and social structures) are *existentially dependent on* the ontogenetic elaboration of the ideational/cultural level that is conducted by self-reflective agents, and not on the multilevel stratification of natural necessity.

ii) Emergence and the human components – scenario no2

For simplicity's sake, in the following critical remarks, let us put aside the reductionists' approaches which defend the reducibility of macro-properties and macro-states to human interaction, because most critical realists defend irreducibility; they defend the existence of that societal surplus which does not allow for reductionist echoes.

In the literature of emergence, one can find three basic conceptualizations of it, which are intrinsically related to three classical *naturalist imageries*. The first one is the *molecular imagery*; here, macrostates are frequently described as *structural emergent properties*, since it is because the specific lower-level components of the higher-level entity are related in a certain quasi-determinate way, which can be conceived of in terms of a persisting structure, that these higher-level properties emerge. Lower-level components of different classes have certain powers whose interaction, under certain external conditions, follows certain patterns of order and/or spatial architecture. And it is due to and through this structured relationality that certain mechanisms are theoretically inscribed into the higher-level entities, which then produce properties and powers that no lower-level component of these new entities possess, whether it is taken in isolation (under various external conditions) or as a constituent of other forms. For example, I can wash my hands with water, but I cannot do so with oxygen.

The second naturalist imagery is the *chaotic or dynamic system imagery*; the fact that the molecule of water has a certain structural form does not imply that all entities in nature are supposed to have structural emergent properties. On the contrary, dynamic, complex and chaotic systems are characterized by non-linearity, unpredictability, malleability of structure and sensitivity to initial states (see Sawyer,2004; Kaidesoja,2009). Here, the relationality among the components lacks orderliness and, as regards the macro-states, we should be talking of *relational emergent* properties rather than structural ones. Multi-agency and de-mechanization are resulting features of these systems. The complex interaction of various causes gives rise to higher-level properties which cannot be theoretically decomposed into or reduced to the properties of the lower-level components of the complex entity.

[3] Social systems here have nothing to do with structural functionalism or systems theory. For, as I shall explain later, they have a quasi-ideational status.

While this second conceptualization of emergence seems more up-to-date and broader, it can still be accused of causal micro-reduction, like the first natural imagery; since even if many theorists of emergence could agree that the emergent properties and powers are not reducible to the properties and powers of a single component, they could still maintain that we can trace the paths of the (now unstructured) causal interaction among the different powers that the higher-level properties emerge. This idea of causal micro-reduction is also a threat in the first natural imagery. What is really new here is the difficulty posed by the theoretical traces of micro-reduction. Within the frame of the notion of 'weak emergence', macro-states are wholly constituted and generated by micro-level phenomena, 'but the micro-level phenomena involve such a kaleidoscopic array of non-additive interactions that the macro-level dynamics cannot be derived from micro-level information except by means of simulations' (Bedau,1997:393).

A stronger version of emergence, to which any kind of causal micro-reduction would be anathema, would take into consideration a third basic conceptualization of emergence, i.e. *the organic imagery*. Instead of 'components', we are now talking of 'constituent parts' that have a functional role, in the sense that their existence is inexorably dependent on the existence and successful function of the whole entity and vice versa: the human liver cannot exist in isolation (or as a free element in nature) or in combination with other heterogeneous parts, as is the case with the atoms of oxygen. Of course, the whole still has emergent powers and properties, but what is interesting about this third imagery is that it implies a circular or downward causation, where the functioning of the whole exerts certain intrinsic powers on the parts. Note that the idea of downward causation can be supplementary to the first two imageries without invoking the notion of function; but most of the time, authors find themselves in the difficult situation of a circular causal path, where micro-interaction, either structured or unstructured, generates powers that impinge back on it.

I would like to argue that, in natural scientific work, these three imageries, as well as their various combinations and/or modifications, can be more or less legitimate or illegitimate, more or less relevant or irrelevant to each object of scientific investigation, more or less useful. This also holds for the reductionist/collectivist debates: 'the issue of whether a reductionist or holist approach is appropriate for any given higher-level property or phenomenon is an empirical issue that can only be resolved via scientific inquiry.' (Sawyer,2001:576) But the old realist inclination to impose these imageries on theorizing in the social studies is illegitimate and irrelevant to the ontic conditions of the social domain. Again, as I have explained in the previous section, the macro-entities of the social domain (culture, institutions, structures) are not wholes which are emergent from human components whose interrelations follow patterns of natural necessity.

Critical realists have proposed many accounts that attempt to adjust these three imageries to the social domain. I think we can summarize these efforts by categorizing them into four *stories of naturalism* (SN). According to the first story of naturalism (SN1), the materiality of structures and of the different material elements we encounter in our creative agential conduct constrains ideational and cultural production by limiting the practical

possibilities of demiurgic poiesis; having material causes (Lewis,2000:258; Sayer,2000), social structures constrain and enable the possible actions of social agents. As Archer claims,

> … the basic argument consisted in sustaining the ontological status of resources such as land, food, weapons or factories because (i) rules and meanings are often unintelligible without reference to them ... i.e. they have *autonomy*; (ii) their prior existence frequently constrains the meanings which can be imposed or made to stick, i.e. they are *anterior*; and (iii) their effects are often independent of the interpretations placed on them, i.e. they exert *causal influence*. (Archer,1995:176)

This idea of materiality constraining meaning is more or less shared by both critical realists and anti-realists, although for anti-realists, it should not be overemphasized.

In the second story of naturalism (SN2), ordered and persistent relations among social positions (slots and situational logics to which certain vested interests correspond), which relate to specific kinds and quantities of material or symbolic capitals and resources, express objective moments in social life and, thus, *structural* emergent properties and powers constrain the decisions of agents. Note that there is no theoretical necessity to assume human components in the constitution of the emergent entity and that structured relationality can pertain only to social positions and slots of resources. The concept of 'objective interests' is important here as an objective/objectivated incentive for the guidance of social activity towards certain life-projects.

In the third story of naturalism (SN3), *relational* emergent properties and powers should be assumed to fashion, tame and/or *orient* agential action, as well as to define and delimit the possible socially legitimate, valued, expected or esteemed social behavior. Roles, for example, are expressed in and through relatively stable social relations that pre-exist social interaction and agential thoughts about them. 'Necessity' here refers to the internality of the constitutive relations of mutual definition that are inscribed into the genuine relatedness of two or more roles; the most widely used example is that of the relation between the tenant and the landlord, in which the obligations and the rights of the one role are defined *only* in relation to the obligations and the rights of the other role, and both roles are relatively independent of what each role-incumbent thinks of them. Note that here, again, there is still no need for assuming human components. Finally, according to the fourth story of naturalism (SN4), social individuals, groups and/or sub-systems, and institutions are *functional* parts of holistic social and cultural systems which exert intrinsic powers on them. Systemic equilibrium, coherence and convergence are important concepts in this tradition.

In this article, I argue that a coherent anti-realism should only tolerate a mild version of the first story of naturalism (SN1) – a version in which materiality constrains meaning-production only in a vague and abstract way – and reject the last three of them by showing their inconsistencies. Critical realists adopt one or more than one of the first three stories of naturalism or try to modify and/or combine two or all of them, while rejecting functionalism for proposing an over-determination of agential thought and action. Downward causation is

frequently assumed to exist (see Lawson,2013), albeit in a controversial way, as I shall show when examining Dave Elder-Vass' work on morphogenesis.

Kaidesoja (2009) shows that, in his various works, Bhaskar offers three different and incompatible accounts of social emergence that are quite comparable to the three naturalist imageries presented above. Not surprisingly, Archer tries to coherently combine the first three of these stories of naturalism while often – and controversially – adopting the assumption of downward causation. Archer uses the terms 'structural properties' and 'relational emergent properties' interchangeably. For Archer, *emergent social structures* have powers because of their *necessary* and *relational* character. Again, on the one hand, for Archer, structure and agency are conceived of as ontologically distinct, as having distinct powers and as exerting their powers at different times (scenario no1), and, on the other hand, her notion of emergence entails necessary relations between agents and material elements (scenario no2). But, as I shall show, if scenario no2 is the case, that is, if these ordered and necessary internal relations take place between humans and material objects, we have two options: social determinism or an unfortunate and paradoxical manoeuvre like the one that Archer makes when talking of *emergent structures*, and not of *emergent entities*.

First of all, why social determinism? As I have already explained, the components of the structure of an emergent entity (SN2) come into relations of a quasi-determinate architecture, which means that the field of powers that is implied does not leave any room for agency. This idea of 'the human component' is sometimes accompanied by the aforementioned notion of downward causation (SN4): for some social realists think that the new entity exerts two kinds of causes, that is, extrinsic causes, which interact with the causal powers of other entities or particulars, and intrinsic causes, which are exerted on the components that constitute it. The paradoxical question that immediately arises is whether these *intrinsic* causes, which are exerted back on agents, should be regarded as persistent and 'strong tendencies' that contribute to a synchronic causal interaction which is responsible for the maintenance of the structure; or as diachronic tendencies of a higher-level entity which exerts powers on its components which are somewhat mysteriously conceived of as relatively independent of this higher-level entity (scenario no2). The idea of strong synchronic tendencies approximates functionalism, for tendentious guidance gives its place to ordered necessity.

Like most critical realists, Archer clearly opposes social determinism. But this problematic status of emergence as analyzed above is, I think, evident at several points in Archer's work, especially when she claims that what is crucial about structural emergent properties as internal and necessary relationships is that they have the generative capacity to modify the powers of their constituents in fundamental ways, to exercise *sui generis* causal influences (Archer,1995:174), as well as to generate causal powers proper to these relations themselves (Archer,1995:177). Here, what 'differentiates a *structural* emergent property is its *primary dependence upon material resources*, both physical and human.' (Archer,1995:175) In this a case, structures exert two kinds of causal powers – on the components of the emergent entity themselves and on other external entities – and, considering the two scenarios

discussed above, both kinds of causes are exerted on what is supposed to be ontologically distinct, that is, agency.

If structural emergent properties express 'internal and necessary *relationships* between real collectivities and their further relations with entities like the prevailing mode of production' (Archer,1995:178), 'real collectivities' become components of the higher-level entities which exert downward causation on these collectivities[4]. What Archer calls 'morphogenesis of agency' can be explained as that *necessary* moment in the morphogenetic cycles which expresses the incorporation of the 'human component' into an emergentist theory, in the sense that the emergence of the whole also entails the modifications of the constitution of its parts; this idea secures Archer's realism against the possibility of a synchronic or diachronic societal self-instituting where 'the same' people confront the structural conditioning that has emerged from their *own* past activities. As Archer has admitted, 'my own analysis does not endorse a "self-government" model for the social order' (Archer,2013:14). But it *can* also imply a conception of downward causation as a diachronic power that is exerted on the parts, which is Elder-Vass' case and which is examined in the next section. It is in this sense that Elder-Vass' theoretical contribution to the idea of emergence is supposed to complement Archer's incomplete notion of social emergence. Yet, as I shall argue, in his effort to account for a more coherent social emergence, Elder-Vass makes things worse for morphogenesis.

Before moving to the examination of Elder-Vass' contribution to emergence, one could make a few further remarks as regards Archer's ideas on emergence: if critical realists have no choice but to implicitly or explicitly adopt the idea of 'the human component', then they are condemned to the paradoxes and inconsistencies that this article presents. Harré and Varela (1996) are right to complain that the assumption that human agency is the only efficient cause in the social domain, together with the assumption that only particulars can have causal powers (Harré,2002:111), leads one to see that it is only the social individual that can be legitimately regarded as a *powerful particular* and 'that Bhaskar's transcendentalist theory of social structure *is* a violation of causal powers theory.' (Harré and Varela,1996:321) Indeed, I think, if the orderliness that characterizes the different levels of the constitution of the social domain is to be erroneously identified by critical realists with the structure of a powerful particular, then they should admit that social agency is *not* the only efficient cause in societies – and that organizations and institutions are higher-level emergent powerful particulars whose properties (but not structures) are emergent. But, again, this image borders on functionalism.

Archer tries to evade this trap by talking of *emergent structures* (Archer,1995:67;71). But what should be considered 'emergent' are the distinct properties and powers of the new entity as well as the entity itself – not its compositional structure. For to claim that the components of an entity are related in such a (structured/ordered) way that this higher-level *emergent* entity displays new properties, which cannot be theoretically reduced to the

[4]'The structured whole being understood in terms of the social processes which articulate relations between individuals and groups.' (Archer,1982:475)

properties of these components, is *not* equal to concluding that a new structure *emerges* from the (structured) relations of these components.

Structures cannot emerge; according to a coherent critical realism, it is certain properties that can emerge – and that happens due to the structured relations among certain components. And the new 'entity' that is supposed to emerge should not be identified with the structures formed by the relations or the interaction of its components. But Archer fails to recognize this. Consequently, as regards Archer's morphogenetic approach, if we deny the idea of 'emergent structures', her second temporal distinction is threatened, since the restructuring of relations *could* be placed in the stage of (causal) social interaction and not in that of emergence – and this placing would result in the identification of the stage of social interaction with that of structural elaboration and in agents being capable of a synchronic impact on social structures.

By excluding the synchronic agential impact on structural elaboration from her account of the constitution of society, Archer definitely excludes all intentional, synchronic or diachronic, social changes brought about by a powerful group – by a powerful elite, a democratic majority, a revolutionary group, a massive social movement, or a 'corporate agent'. According to the ontogenetic approach I am proposing in this article, this synchronic or diachronic impact of collectivities on social structures always occurs, to various degrees and in unpredictable modes, through the interaction among the different self-reflective agents, who are placed in different social positions (related to the available material resources and the relevant role-hierarchies) and who have conflicting ideas about what exists and about what needs to be transformed in society.

If Archer tries to avoid the threat of causal reductionism by talking of unintended consequences and by temporally distinguishing between socio-cultural interaction and *structural emergence*, Elder-Vass, in the face of the same reductionist threat, looks for higher-level social entities; and, in this sense, he attempts to improve what I have called 'scenario no2' in Archer's work by employing the idea of diachronic downward causation. Archer's temporal distinction gives its place to a distinction between, on the one hand, synchronic compositional relations that exist among lower-level entities and, on the other hand, diachronic causal interaction.

Elder-Vass' notion of emergence and the ontogenesis/morphogenesis distinction

Elder-Vass (2007,2010) has tried to find a remedy for Archer's indecisiveness about the proper placement of agency as well as for the problematic ideas of morphogenesis in relation to 'emergent structures', the human component and causation. But, as I shall argue, in his effort to propose a more coherent and sophisticated emergentist ontology, he makes things worse for morphogenesis.

For Elder-Vass, it is due to the structured relations among the components of an emergent entity that the emergent properties of this entity can be explained in terms of mechanisms that reside in this structured relationality of these components. Yet, Elder-Vass

(2010) clearly adopts a weak version of downward causation, where he tries to combine a compositional conception of the emergence of a new entity from the structured relations among the different components (the first of the aforementioned naturalist imageries) with the idea of downward causation; 'a higher-level entity causes a change in one of its parts over a period of time – cause is a diachronic relationship.' (Elder-Vass,2010:60) For example, Elder-Vass (2007:32) argues that, in the case of his analysis of organizations, the agents' social behavior will be co-determined by the causal powers of the organization and the causes of the agents themselves. According to this view, morphogenetic and morphostatic causes are either intrinsic or extrinsic powers – in open systems that require an inter-level analysis – that can *diachronically* change or sustain the structure (form) of relations.

Yet, at some points, he claims that downward causation is part of the *diachronic* causes that interact, with various results, and that it is only the compositional relations that are responsible for the synchronic emergence, whereas, at some other points, he claims that there is interaction among the parts. But it is not clear whether this interaction among the parts is a causal interaction. Elder-Vass' emergentist story says that the multi-leveled interplay of the various diachronic morphogenetic and morphostatic causes (including downward causation) results either in the preservation, the transformation, or the destruction of the higher-level entity – and thus of its compositional form. But, according to Elder-Vass, the irreducible causal powers of the higher-level entity (including downward causation) emerge due to the structured relationality that exists among specific parts. But why should we not suppose that the 'structured relationality' that exists among certain lower-level entities means 'ordered causal interaction' which results in certain compositional forms? Why should we place causal interplay only at a diachronic level of analysis, and not also at a synchronic one, so that we can conceive of the synchronic emergence of the causal powers of the higher-level emergent entity as the synchronic outcome of the causal interaction that exists among the lower-level parts?

A critical realist, I suppose, could claim that this would lead us to the vindication of reductionism, because higher-level causes can be conceived of as the synchronic *result* of lower-level causal interaction. Yet, this is not a necessary outcome. The answer to the question of whether synchronic causal interaction among the lower-level parts leads to reducibility or not should only be an empirical one and given by each science and its philosophies. Synchronic causal interplay among components *can* result in emergent causes which are *consistent* with the 'causal repertoire' of the various components; but these causes would not *emerge* if these particular components did not come into interaction under certain external conditions and levels of aggregation.

Therefore, I maintain that, instead of distinguishing between the synchronic compositional analysis and the diachronic causal interplay, like Elder-Vass (2010:23), an emergentist ontology *could* assume that different lower-level parts interact in different ways under various external conditions; and that the outcome of this synchronic interaction can be epistemologically characterized by either strong emergence, weak emergence, or reducibility – it is a question that can only be answered empirically. It is also an empirical question

whether synchronic interaction takes a structured (first naturalist imagery), a relational (second naturalist imagery) or a functional form (third naturalist imagery). It is causal interaction that generates, transforms or sustains – both synchronically and diachronically – each specific compositional form. After all, Elder-Vass claims that there are internal morphostatic causes which constitute 'strong tendencies' exercised among the parts, and which sustain the compositional form (Elder-Vass,2010:34,35). Indeed, he is right: diachronic multi-leveled causal interaction *can* have a compositional effect on (the form of) the higher-level entity. But these strong synchronic morphostatic tendencies (together with other intrinsic synchronic morphogenetic causes) will participate in every t_i of this interaction.

In any case, the main aim of this paper is not to offer a more coherent account of emergence – let alone to take sides on the existing debates between reductionists and collectivists. The discussion of emergence in this article aims at showing the inconsistencies of certain critical realist approaches, rather than formulating a coherent social realist model for the emergence of social forms.

As I have already explained, the various imageries of emergence can be utilized as heuristic tools in sciences which examine the different levels of the natural stratification. In this sense, all three naturalist imageries described above (as well as their variations and possible combinations) can be useful in more than one scientific field; but there is not only one useful model of emergence. Elder-Vass (2010) is one of those authors who wish to propose one and the same mode of emergence for every kind of entity in the various strata of reality. Even though Elder-Vass rightly accuses many of his theoretical opponents of proposing a flat ontology, one could reasonably argue that *he* proposes a monistic emergentist ontology; it is highly doubtful that the molecule of water (displaying structural emergent properties), a star like the sun (displaying relational emergent properties), the human body (displaying functional properties) and the pen (which cannot really be used as an example of emergence) can all fit into one and the same model of emergence.

If we take seriously the idea that the different strata of reality present different compositional forms of parts/whole relations, then multi-level analysis should grant that we are in need of different ontological schemes in our efforts to account for multi-level interaction. This, at first glance, means that it is up to each science and its philosophies to find the ontological scheme that most adequately describes nomological phenomena in certain strata of reality. But it also means that social ontology does not *necessarily* have to apply naturalist ontologies to the social domain.

If there is a distinction that can apply to both the natural and the social realm, this is the one between ontogenesis and morphogenesis. This is a crude and simplistic distinction, which places complex processes on one or the other side; but it can prove fruitful in drawing further comparisons and analogies between natural ontologies and social ontology. Thus, those processes that are responsible for the emergence, production, creation or mutation of a new *mode of being* with either irreducible properties or an unprecedented compositional form, or of a new abstract, unperceived, holistic or theoretical entity, can be generally called *onto*-genetic. In contradistinction, *morpho*-genetic processes can only *result* in the re-formation of

aggregational entities whose properties are reducible to lower-level entities, or in the re-ordering of the synthesis of existing 'materials' in order to produce a combinatory result which can methodologically be described only in terms of its constituent components. Elder-Vass makes a similar distinction which, however, remains undeveloped in the rest of his analysis: 'In general, morphogenesis encompasses processes that (a) contribute to the initial development or creation of any entity; and (b) contribute to the subsequent modification of its form within the structural range of the entity type.' (Elder-Vass,2010:37) I take it that the former is the case of ontogenesis, while the latter is the case of morphogenesis.

The boundaries between ontogenesis and morphogenesis are frequently blurred because, for example, in some cases relational re-ordering can lead to a radical re-constitution of an existing entity or to the emergence of a new entity. The answer to the question of whether certain processes lead to ontogenesis or morphogenesis depends on each specific science and its philosophies. After all, what can be conceived of as a radical ontogenesis in the social domain may, from the standpoint of the natural sciences, only be an aggregational product of an existing material, a reshaped existing material or a compound of existing materials. Let us take the example of an important sculpture. From the standpoint of the history of art, it can constitute a masterpiece which defines a new artistic movement; from the standpoint of the natural sciences, it can only be a re-shaped piece of marble.

Yet, despite the methodological difficulties that this distinction can generate, the idea that there can be different parts/whole compositional forms for the different stratums of reality leaves us with no 'theory of everything'; and therefore, the only remaining reasonable line of comparison among the different levels of analysis is the answer to the general and simplistic question of what is the unprecedented *existential surplus* that characterizes the different entities that are placed on each level of analysis by the different sciences and their philosophies. This should be the role of ontology in the post-positivist era: instead of offering universal theories of everything, it should offer conceptual schemes for the basic constituents of different strata of reality, thus accounting for the abstract, unobservable, holistic and 'theoretical' entities that (are assumed to) *exist* in each domain.

Now, as I have already explained, emergence is inapplicable to the social domain, and thus, we are in need of a social ontology of how institutions and social structures are *existentially dependent on* culture and agential activity. Again, Archer is right that we should distinguish among macro-entities like structure and culture, and then also distinguish ontologically these macro-entities from agents and their socio-cultural interaction. But, again, culture, institutions and social structures are not composed of agents, and, therefore, cannot be theorized in the emergentist terms of higher-level entities which are composed of material objects and agents. The most characteristic example is that of culture. 'Scenario no1', which I have discussed above in relation to Archer's dual account of the structure/agency problem, is clearly present in Archer's account of culture (1996), where the cultural system is composed of objective items, texts and logical relations, but not of agents and their causal relations – these (i.e. agents and their causal relations) are theoretically placed on the level of socio-cultural interaction. According to Archer, the objective cultural system, which consists of

intelligibilia, should be distinguished from socio-cultural interaction, and the causal interaction between these two levels is analyzed in terms of the two analytically distinct moments of the continuous morphogenetic cycles – which result either in cultural morphogenesis or in cultural morphostasis.

As I have discussed above, scenario no1 has to do with different entities having distinct properties and exerting different *extrinsic* causes on each other; but I have distinguished this scenario from scenario no2, where structures are composed of both material objects and agents in an emergentist account of morphogenesis. Indeed, it would be very difficult for Archer to account for culture in emergentist terms. For even *if* the cultural system, as a logical structure, could have both material (archives and books) and human parts, the absence of a higher-level material entity (or particular) would still be more than obvious here. This is where Elder-Vass' theoretical intervention – i.e. his search for higher-level entities composed of individuals – comes in. His idea of norm-circles and organizations is suggestive of this idea of higher-level entities which are composed of agents and which exert diachronic downward causation on these parts. For example, in the case of norm-circles, we start from individuals and their beliefs which are caused by past pressures (Elder-Vass,2010:125); and then, according to this view, as I understand it, people who share the same beliefs, expectations and norms form a norm-circle.

> Although institutions depend on the members of the norm circle sharing a similar understanding of the norm concerned, emergent or collective properties cannot be produced by such formal similarities … It is the commitment that they have to *endorse and enforce* the practice with each other that makes a norm circle more effective than the sum of its members would be if they were not part of it. (Elder-Vass,2010:123)

But what are missing from this analysis are the continuous processes of socialization which denote the ways in which social individuals *internalize* the intersubjectively shared ideational context of world-images and normative orientations. Therefore, Elder-Vass starts from what is the outcome of the processes of cultural diversification and of internalization of culture.

In any case, the search for higher-level social and cultural entities still faces the problem that realism assumes that agency *is* the *only* efficient cause in the social domain, as well as the problem that in society macro-entities like culture, structures and institutions are not composed of agents. Elder-Vass squashes the existence of these *theoretical* entities by silently incorporating them into the *emergent* higher-entities (which are composed of agents) he identifies in the social domain.

It is interesting to note that Archer and Elder-Vass (2012) have an revealing discussion about culture and its realist theorization. In a joint paper published in 2012, Archer rightly accuses Elder-Vass of eliding the distinction between the cultural system and socio-cultural interaction – I say 'rightly' because, in my view, this elision is unavoidable if we consider culture in the emergentist terms of higher-level entities. And Elder-Vass, in his turn, rightly criticizes Archer for offering an objectivist notion of culture – I say 'rightly' because I

agree with Elder-Vass that 'logical relations … exist in our heads. We share similar understandings of logical relations because we share similar cognitive capacities and we are taught to use them – to reason – in similar ways.' (Archer and Elder-Vass,2012:107). For Archer, instead, '*sharing* is always an *aim* on the part of a particular group *and never a definition'* (Archer and Elder-Vass,2012:108-109).

In my view, cultural diversification does not entail the absence of 'sharing'. On the contrary, cultural diversification is cognitionally premised on the shared imaginary schemes of complementary, partially contradictory, or mutually exclusive world-views and normative orientations. This is the common categorical and pictorial ground that makes our disputes possible. It is the *internalized* categorical background which allows us to understand what is radically new, what constitutes an application or an extension of an existing idea or norm. After all, as I shall argue later, sharing does not entail endorsement. This is a crucial drawback of Archer's objection to the idea of cultural sharing.

In this article, I shall show in what ways social ontogenesis differs from the idea of social morphogenesis. As I have already explained, the latter intends to *paradoxically* combine the idea that social forms (institutions and social structures) are context/concept/activity-dependent with the ideas of *necessity* and *objectivity*. Ontogenesis, however, intends to show that the idea of the context/concept/activity-dependence of social forms implies that: 1) the persistence and the orderliness of social relations do not mean that they (i.e. social relations) are *necessary*, since they do not signify a natural emergent phenomenon, but *a socio-cultural product*; 2) we can only theorize, act upon and transform these forms as long as we *intersubjectively* share a *cultural context* of imaginary schemes; and 3) novelty in the social domain stems from the elaboration of the ideational level, and not from the unintended consequences of agents' activities within a *morpho*-logical range of possible trans-*formations* of ordered and necessary material relations.

Structural conditioning, structural transformation and collective creativity

So far, I have argued that there are some controversial points in Archer's work, which emanate from her questionable choice to approach agency as *externally* exerting its own powers (scenario no1) on structure and, simultaneously, as *internally* related to other material components (scenario no2) – while considering it the only efficient power which can mediate the other powers of social and cultural conditioning.

This is not the case of a causal interplay between two distinct causal powers, because, in this causal interplay, only one causal power has been privileged as efficient and mediatory; again, *the relative autonomy of structure and the ultimate efficiency of agency cannot be reconciled in any way*. In light of these contradictions and misunderstandings, commentators can identify in Archer's work numerous traces of the naturalist account of the structure/agency problem: sometimes it is the concept of social structures that seems to have the upper 'exegetical hand', since there are *necessary* relations among the different agents; and sometimes her work tends towards individualism, since, in the final analysis, all causes

are mediated through agency and, thus, agents, as the ultimate cause, find the ways to escape structural conditioning (See Kemp,2012).

I have already opposed the idea that the concept of emergence (scenario no2) has any explanatory value in social ontology; but how should we tackle the idea of structural conditioning in relation to the idea of objective structures? This section focuses on this question, not by altogether denying Archer's idea of the 'directional guidance' (or involuntarism) of structural conditioning, but rather by rejecting its presentation as an emergent power. I take advantage of Archer's own words to insist that 'the powers of people mean the projects they are capable of conceiving can imaginatively outstrip the social possibilities of their times. It is a necessary admission if political reform, policy formation, science fiction and research activity are to remain recognizable' (Archer,1995:200). In other words, crude references to material settings (SN1) and the conception of their transformation as an 'unintended result' cannot adequately cast light on human and *collective* creativity. The latter is the only source responsible for political reforms, research activity and numerous other lay, professional or academic activities, as well as for the elaboration of their context, where individual and collective creative imagination is at work, designing, synthesising and finally exerting an organized and intuitive effect on material and institutional forms – while contributing to the collective *genesis* of new forms of *social being*.

It is true that structural and cultural transformations cannot *coincide* with every single agential intention and wish, but this 'fact' of social life may at least *imply* that some of the corporate agents are *partially* satisfied with these transformations. As Archer's distinction between corporate and primary agents *partially* recognizes, some individuals or groups are more influential in orientating social change than others; for, after all, they are less constrained, in the sense that they are 'more free' than others not only regarding their possible personal choices when pursuing various goals, but also as far as the possible impact they can exert on the elaboration of the shared imaginary schemata is concerned. And it is true that 'the significance of involuntarism consists not in an inability to change our situations, but rather in the fact that to evade one is merely to embroil oneself in another.' (Archer,1995:201) But this should not lead us to a social ontology which allows for *degrees of freedom* in the stage of social conditioning, but rejects the possibility of social self-instituting by pulling the rug from under the agents' feet in the stage of social elaboration, in which no synchronic effect is possible. After all, Archer's temporal distinction among the three phases of morphogenetic cycles (structural conditioning, social interaction and structural elaboration) is quite unintelligible, since agents who participate in socio-cultural interaction 'work on' (and frequently synchronically transform) and are *simultaneously*, more or less, constrained by social forms. Again, this distinction only aims at implicitly denying the real implications of the idea of the context/concept/activity-dependence of social forms.

The idea of context/theory/activity-dependence re-considered

The idea of the context/theory/activity-dependence of social forms is very confusing, since it is scarcely adequately analyzed in the literature of critical realism. For, this idea has a two-

fold character. It can imply that: 1) social structure can only *manifest* its conditioning through the meaningful interaction among agents, who reflexively draw on a shared cultural context which provides them with the categorical background that renders this interaction feasible; but also that 2) the transformation of material structures is existentially dependent upon human interaction which inevitably takes place in this shared cultural context.

I should start my analysis of this idea by focusing on Harré's early work (1975); his idea of the context/concept/activity-dependence of social forms is expressed in his view that 'society is a product of theorizing' (1975:271). Harré (1975) claims that scientific representation can only become intelligible if we think of it as an iconic representation of the objects of scientific analysis. For Harré, all icons of reality, be they scientific or lay, are constrained by the same background categories which set the metaphysical limits of human experience. And, in this sense, the social order and scientific theories are both *realizations* of these shared world-images (1975:279). But Harré (1975) is not clear about the status of this background or the potentialities of its diversification. Since Harré (1975) regards scientific and lay imaginative conduct as iconic, these shared icons, be they scientific or lay, can only be constrained by holistic world-images which determine the content of social metaphysics and thus belong to a culturally shared background of societal imageries.

In this respect, Charles Taylor's *Modern Social Imaginaries* (2002,2004) is quite revealing. For Taylor (2002,2004), the social imaginary constitutes the ideational background which enables the common understanding 'that makes possible common practices and a widely shared sense of legitimacy.' (Taylor,2004:23) For Taylor, the social imaginary is broader than social theory since it defines the ways 'in which people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations' (Taylor,2002:106); but it is also theory-informed: 'what start off as theories held by a few people may come to infiltrate the social imaginary, first that of elites, perhaps, and then of society as a whole.' (Taylor,2002:106) For Taylor, the relation between practices and the social imaginary is not one-sided: 'if the understanding makes the practice possible, it is also true that it is the practice that largely carries the understanding.' (Taylor,2004:25) Taylor adopts a Weberian stance towards this relation between economic and cultural effects and avoids monistic and reductive analyses. But since the social imaginary is the prerequisite of the intelligibility of any practice, I think that ontological priority should be given to the intersubjectivity it implies. This priority of the social imaginary over material factors was emphasized in the work of Cornelius Castoriadis. Indeed, it is very interesting that Taylor (2004) does not mention Castoriadis, who was the first to adequately analyze the term 'social imaginary'.

For Castoriadis (1987,1997), the creative power of the impersonal collectivity is attributed to what he calls 'instituting social imaginary', which gives rise to the social imaginary significations that set the limits of social structuring. This collective capacity for self-instituting is what Castoriadis calls 'the primal institution of society', which then gives rise to the second-order institutions (Castoriadis,2007:100), that is, the more specific

institutions, such as language, sexual relations, family etc. It is in this sense that, for Castoriadis, the concept of social imaginary significations is of ontological primacy, since the functional dimension, which is necessary for humans in order for them to cope with the natural stratum, and the social forms are *crystallisations* of these social imaginary significations.

Space limitations do not allow for a detailed explanation of how the social imaginary significations and the institutions which are their bearers are internalised by social individuals through socialization. It suffices to state that, for Castoriadis, the human *psyche* (soul) is a radical, defunctionalized and undetermined imagination that consists in a constant flux of representations, affects and desires (Castoriadis,1997:127), and which is active in (but not always in harmony with) the process of socialization, through which the human psyche assimilates the social imaginary significations. In this sense, human imagination is the ontological presupposition for the reconciliation of socialization with creativity; it is a prerequisite for self-reflection, and it is always present in social life, even if innovation and reflection take different forms in different societies.

Yet, if 'it is the institution of society that determines what is "real" and what is not, what is "meaningful" and what is meaningless' (Castoriadis,1997:9), this network of imaginary schemata should also include world-images, that is, images of what is instituted as real or as existing. Castoriadis' notion of imaginary significations is a compressed form consisting of two elements: descriptive world-views and collective normative orientations. Significations are of a normative character, and since normative and regulative ideas have referents (i.e. they are about something), these *descriptive* referents can only be of the same kind (i.e. imaginary) and *cognitionally* prior to normative orientations.

According to the anti-realist account of ontogenesis that I am proposing in this article, if one considers the fact that human creativity and reflection can only be intelligible if thought of as taking place *within* a cultural context, the *genesis* or the modification of imaginary *world*-views and normative orientations implies the theoretical *assimilation* of these elaborated world-imageries into the existing background network of imaginary schemes. But let me now answer the question of what is the social imaginary as I understand it: it is the complex, all-encompassing and relatively fluid network of the most basic collective world-imageries and normative orientations that are shared by the different agents of a collectivity. As Taylor (2002) explains, the social imaginary extends beyond the immediate background understanding of our particular practices to the basic notions of our moral and metaphysical order (Taylor,2002:107). The *metaphysical constitution of society* resides in the discursive elaboration of the social imaginary. Complementary, antagonistic or mutually exclusive world-imageries are at the core of our intelligible action. This means that they not only constitute our metaphysical categories of (fallibly) conceiving reality, but are also *potential* self-fulfilling world-views. The dominant world-views, which are largely endorsed by many groups or by the most powerful ones, set the ideational limits of the understandings of their members.

Sharing here does not necessarily mean endorsement; nor does it imply cultural coherence or integration. This is Archer's (1996) fallacy: she questions cultural sharing on the basis of the idea that different agents adopt different values and ideas. But grasping a part of the imaginary schemes does not imply that we endorse all of them. On the contrary, it is unintelligible how one can only grasp the ideas and norms she endorses; everyday interaction would be impossible if we could not also, at least minimally, understand what others endorse.

Cultural diversification requires a categorical and representational background framework within which possibly new representations and possibly new ethical stances can be co-defined. Divergence requires a partial but also adequate grasp of the common ideational denominator and a shared conception of the most basic societal views and categories which set the limits of what counts as 'new', 'old' and 're-defined' – of what is 'possible', 'impossible', 'valuable', 'reasonable' or 'nonsensical' etc. – either for 'Me' or for the 'Others'. And what is indeed 'radically new', in fact, expands the network of imaginary schemes, since it can only be a divergence from it – not an *ex nihilo* innovation, as Castoriadis argues at several points.

Realists find themselves in a predicament when discussing immaterial macro-entities in the social ontology of culture: Archer is looking for logical relations that constitute an objective ideational background inscribed in material resources and Elder-Vass is looking for higher-level cultural entities (see, Elder-Vass,2012:44). Elder-Vass is right that shared ideas exist only in our minds and not externally to us; but the ontological distinction between culture and socio-cultural interaction resides in the idea that culture is an abstract, 'theoretical' and holistic entity which can only be *theoretically shown* to *exist*. The intersubjective sharing of the ideational background of imaginary schemes means that these imaginary schemes will continue to be shared by a collectivity even if one of its members passes away; but as long as one participates in socio-cultural interaction, she still participates in a life-long process of socialization and reflection on intersubjectively shared ideas and norms. Culture is a theoretical necessity and a macroscopic possibility of categorical convergence, rather than an unobservable natural entity. A similar analysis holds for institutions.

This shared categorical background of imaginary schemata is always subject to *discursive* elaboration, which is one of the results of socio-cultural interaction. Discourse, as a term, should be conceived of as that *part of* socio-cultural interaction which has, as its object, the symbolic legitimization and the collective negotiation of these imaginary schemes; and it is a theoretically *blind* term if the discursive dimensions and interactions it denotes are taking place in an ideational and categorical vacuum, that is, if we ignore the fact that these discursive interactions presuppose a categorical, representational and ideational background which constitutes the cultural context which human creativity works on, transforms or radically alters. Social creativity here is ontologically premised on the pictorial form of self-reflective imagination. Borrowing a quotation from Archer's morphogenesis, ontogenesis insists that 'one of our fundamental human potentials is also the source of the typically human predicament: *homo sapiens* has an imagination which can succeed in over-reaching their

animal status ... one crucial implication of this creativity is that human beings have the unique potential to conceive of new social forms.' (Archer,1995:289) Archer has not explored the real implications of these words of hers; this article is an effort in this very direction.

Again, ontogenesis, by definition, denotes the creation or birth (*genesis*) of the social being (*on*), where collective ideational creativity manifests itself, *either synchronically or diachronically*, in the *transformation*, *alteration* and *diversification* of material and organizational settings, that is, of social structures and institutions. The transformation of social structures is dependent on collective interaction, and this interaction should be understood only in terms of *rule-governed* and *situated*[5] power struggles among the different agents – struggles which take place *necessarily within the categorical framework* of the imaginary world-views and normative orientations.

As regards the idea of rule-governed struggles, one can still argue for a modest realism which agrees with the ontological primacy of cultural rules. An interesting account in this direction – an account which adopts the idea of the context-dependence of social structures – has been offered by Porpora (1993), who argues for another kind of dialectic taking place among cultural rules, material relations and human activity. The sequence proposed here is different, since 'material social relations are generated by cultural constitutive rules and thus are ontologically dependent on those rules' (Porpora,1993:217). Cultural rules give rise to social structures as emergently material and consequential relations, and both rules and structures constitute the context of the situated human behaviour, which is thus constrained, enabled and motivated non-deterministically by objective built-in interests (related to these material relations).

Therefore, Porpora (1993) argues for the ontological priority of cultural rules over material structures. Yet, rule-following, as well as the alteration or modification of rules, can only be theoretically intelligible through the presupposition of this context of shared imaginary world-views and normative orientations. For the Winchian (1958) conceptualization of rules as the crucial constituent elements of the cultural domain partially fails to adequately cast light on the fact that 'social relations are expressions of ideas about reality' (Winch,1958:21) and that it is *in light of* these *descriptive* ideas about the world that social agents can (re-)formulate anew the rules of their conduct – that is, on the fact that social agents act and assess their actions on the basis of what is ideationally (and imaginatively) conceived of as 'existing' and 'real'. We cannot understand how a rule fits into our everyday reality, or how two contradictory rules should be applied to our everyday practices, if we do not possess a preliminary view of what the basic constituents of this reality are.

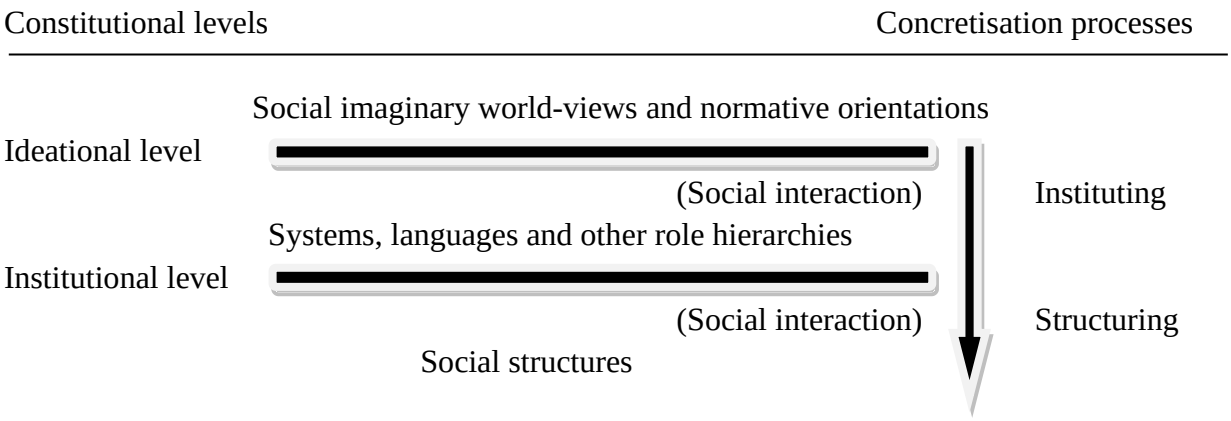
The ontogenetic model of the constitution of society

[5] It is important, in this respect, that Joas (1996), whose pragmatism underlines the situatedness of the creativity of action, recognizes that the innovative emergence of social forms partly relies 'on the cultural sphere. Key concepts of social development must therefore always also be conceived of as imaginary schemata' (Joas,1996:236).

The above analysis does not legitimise a flat ontology which ignores the materiality of the social domain. On the contrary, social ontogenesis aims at respecting all three dimensions of social life (the ideational, the institutional and the material), which so persistently vanish and reappear in the history of social and political thought, but which are scarcely properly combined in non-reductionist, non-emergentist and non-conflationary accounts. More specifically, the ontogenetic approach is meant to cast light on 1) the idea that social structures and the systems that activate these structures, are the *concretisations* or the *crystallisations* of the *ever-changing* ideational level – which is the level of the social analysis of the constitution of society where collective creativity and innovation *genuinely* occur; and, 2) the idea that no social form can be conceived of and engaged with by agents in a categorical vacuum, that is, *if its mode of existence is not consonant with the imaginary possibilities of practice* that are cognitionally defined by the culturally shared world-views.

In this sense, the flux of events in the socio-historical domain cannot be explained in terms of an unequal causal interplay in which the constrained but also constructive power (agency) mediates the constraining power (structure); and the reasons for the structural resistance to change should be found not in the constraints corresponding to the properties of the materiality of the social structure (SN1), which cannot by themselves orientate the socio-historical flux, but in the complex network that exists among the *social imaginary world-views* and the shared *normative orientations* which constitute both the necessary categorical and ideational background and the object of discourse.

Figure 1 depicts the processes of the concretisation of the constitution of society. The ideational level, whose core components are the overlapping, consistent or mutually exclusive imaginary world-views and normative orientations, *directionally guides* social instituting by setting the limits of what is doable and what is valuable on those forms of human interaction that are responsible for the elaboration of institutions such as social systems, languages, and other role hierarchies. The variously interrelated social systems (which give rise to *relatively* enduring power relations) are institutions that are mainly composed of formal, informal, intersecting and relatively enduring role hierarchies, which, in their turn, are composed of overlapping matrices of variously related rules. Indeed, the notion of roles is empty unless we invoke the different (mutually compatible, comparable or antithetic) normative elements (rules) of which roles consist.



Material level

Figure 1. The ontogenetic model of the constitution of society

This is the mysterious case of the third story of naturalism (SN3), in which critical realists erroneously interpret the orderliness and the recursiveness of certain social relations as taking the form of natural structures; and these forms of ordered relations are supposed to correspond to certain kinds of natural necessity. What is most paradoxical in the case of roles, as well as of institutions in general, is not only that their mutual dependence expresses no kind of natural necessity, but also that stability and reproduction are not the rule, but the exception: institutions are in a state of constant synchronic modification even if participants cannot always realize this.

What in lay understanding indicates routine systemic processes most of the time implies the *re-creation,* by the imaginatively reflective agents, of the rules and codes of which this level is composed. The personification of roles and, thus, the modification of rules and codes are only possible through the power of the creative imagination of social individuals. After all, this meso-level has a dual character: it includes second-order ideational elements, such as formal, informal and linguistic rules, or quasi-ideational elements, such as codes – which also have a practical orientation or bear a more *immediate* reference to material objects or settings. At this level, human interaction can – synchronically or diachronically – generate, modify or radically change those rules and codes which are indispensable for the *functionalizing* and *operationalising* of material settings; but, again, this only occurs within the categorical framework of the culturally shared imaginary world-views and normative orientations. Finally, rules and codes can be the object of collective reflection and can, thus, change independently of the intuitive processes of personification.

This meso-level of the constitution of society includes ontological macro-entities like language, political institutions and other institutions that pertain to the public sphere, and the question of the apparent heterogeneity of this level is answered by highlighting the common denominator of these institutions: they are composed of rules. What in social theory stand as cultural rules are guiding shared *canons of situational logics* which are existentially dependent on imaginary normative orientations.

Finally, languages and role-hierarchies have a dual role in societal constitution and are not merely cultural crystalizations. They are responsible for the multi-dimensional form of discourse and also of human interaction in general. Language[6] is more than a medium of meaningful discursive relations; it sets the limits of conceptualization (but not necessarily of thought). As for systems (which specify the hierarchies of roles), they define the different

[6] The social imaginary is shared by the collectivity. In fact, a collectivity should not be equated with a language community, but rather be defined as a community the members of which share the same social imaginary and, therefore, also share (partially and fallibly) the world-imageries and norm orientations this social imaginary consists of, even if each of them only endorses a part of these shared world-imageries and norm orientations.

forms that the power struggles for resources take within discourse. For institutions are not merely cultural concretizations (like social structures), but also constitute the *means* of socialization. Yet, this *constitutional* character of the institutional level cannot by itself lead to the idea that the pre-existence of institutions implies autonomy or causality. For, once again, roles and their components (rules) cannot exist in a pictorial/representational and normative vacuum. Collective normative orientations take their more *concrete* and practice-orienting form at the meso-institutional level.

At the level of material concretisation (structuring), the main distinction that should be stressed is that between, on the one hand, relations of distribution of material resources and, on the other hand, material settings. The former refers to all the complicated and ever-changing relations among what we simplistically call 'structural slots', or among the positions that correspond to specific modes and amounts of capitals and material resources, which constitute *both* the necessary material premise and the product of the power struggles that take place among the different agents in and through human interaction. Relations of distribution should not be identified with the complicated and dynamic *systems* of production and distribution of which the distribution of resources is both the input and the output. But, contrary to the assumptions underlying the second story of naturalism (SN2) – in which many critical realists erroneously treat these relations as *objective* – this dual role does not imply autonomous causal powers.

For it is only *through the orienting lenses* of rules, on which agents *imaginatively* draw for the (re-)creation of power relations of physical coercion, authorization and legitimization, that we can talk of *structural guidance*. It is only through these ideational lenses that we conceive of 'vested interests' in certain ways. Every single agent is more or less constrained and enabled by this conditioning, but what lay understanding is oblivious to is that these distributional structures alone cannot by themselves orientate anyone who does not *possess* the categories of perception and legitimization (the imaginary schemata), as well as the rules, of the *game of struggles*.

Finally, the term 'material settings' points to the sub-structure of society, that is, to the structured forms of *hypostatized* relationality that material objects like bridges, ports and buildings take. Thus, if the *sub-structure* of the educational *system* seems to resist change, this is not due to the material properties of the buildings of the schools and the building of the Ministry of Education, but due to what takes place at the ideational level – i.e. at the centers of policy making under the pressure of relevant social movements or powerful groups of interest. Materiality does play a role, in the sense that certain material objects possess certain properties that make them more or less malleable; but collective creativity renders the limitations it imposes vague and abstract, since these properties cannot tell us anything about the different routes of socio-cultural interaction. Once again, in the first story of naturalism (SN1), critical realists exaggerate the pervasiveness of this conditioning. For it is true, indeed, that the material world sets the every-day practical limits on our effort to give *shape* to it. But this trivial every-day experience alone cannot answer the question of why a specific

institution arose or vanished in a specific society, or why societies that faced similar environmental conditions adopted different ways of coping with them.

Both distributional structures and material settings are the non-emergent *products* of human interaction that takes place at the structural level, and they are synchronically and diachronically dependent on present action. Instead of calling them 'objective structures', like Archer, we should briefly mention that post-positivism has left objectivism far behind in the philosophy of science. *Their materiality alone does not allow for objective knowledge, as objectivity is impossible even in the philosophies of the natural sciences, let alone in those of the social sciences;* financial motives, material costs and benefits, and 'materialistic' interests are never 'objective' – they are conceived of as such only through the lenses of a common ideational context.

The arrow in *Figure 1* does not imply a macro-to-micro model of analysis. As I have already explained, culture, institutions and social structures are the macro-entities of social ontology. Thus, socio-cultural interaction is present at every level of the constitution of society, since self-reflective agents interact and *(re-)construct* institutions and social structures in response to the different practical, ideological or ethical questions that arise in each situation. Another crucial remark here is that – contra Bhaskar's transformational model of society (2011:73) and Archer's morphogenetic model of continuous cycles (1995:157) – the downward arrow in *Figure 1* does not signify a temporal sequence of the different phases of a dialectical relation between analytically distinct causes, but a mode of ontological pervasiveness. The idea of the ontological pervasiveness of culture here means that, in order for the orientation of structural and cultural transformation or reproduction to be accounted for, we should set aside the idea of congruence or incongruence between social and cultural forms. The activities that are responsible for structural transformation and institutional alteration are always in consonance with the possibilities of praxis, which are defined by the *culturally shared* social imaginary.

At the upper/ideational level, the *dialectic* between the social imaginary and agential self-reflection takes the form of slow cultural elaboration where *innovation in context* implies that every ideational modification or radical innovation should somehow come to terms with the existing imaginary. And, it is within the descriptive and normative *possibilities* of this ideational background that agents interact at the other two levels; thus, we do not end up with a deterministic account of the constitution of society, since the self-reflective agents, on whom the ideational elaboration depends, pursue institutional and structural elaboration within the limits set by these *possibilities*.

In the literature, concretisation 'processes' frequently refer to the various phases of socio-cultural interaction which have been described by many critical realists (i.e., Archer, Bhaskar) and many constructionists as a *dialectical* relationship among inter-subjective interactions and objective/objectivated macro-entities. But this kind of dialectic should be considered neither a causal interplay among different natural or naturalistic entities, like in Archer's work, nor a dialectic between agents, as the producers of society, and the objectivated world, as their product (Berger and Luckmann,1966). The transition from the

dialectical constitution of society to the dialogical model of socialization and self-reflection requires that there be no 'objective/objectivated' context-independent effect in a causal 'turn-taking' that takes place between the micro- and the macro-levels of the constitution of society.

The 'dialogical turn-taking' between the reflective self (the 'I') and the 'Me' is also present in Archer's work – as the mode of subjectivity which reflects on personal evaluations and projects while confronting an *objective* environment, and which mediates its conditioning. But the idea of the 'dialogical self', as I understand it, points to an agent-to-agent discursive interactional process of confronting macro-entities (that belong to the three levels of the constitution of society), which takes place under the categorical aegis of the *intersubjectively* shared ideational background. According to social ontogenesis, there is no 'objective' (or objectivated) moment as there is in Archer's thought. And the ideational background is not another objective moment in this dialectic, but the intersubjective context within which human interaction takes place and becomes intelligible. And the 'Me' is not the objectified echo of a past verbalization of the 'I', as in Archer's account (2003), but a heterogeneous memory-traceable depository of personal experiences, beliefs, and values, as well as of *internalized* imaginary schemes, roles and rules. The reflective 'I' and the 'Me' are in a continuous 'dialogue' in our efforts for a constant negotiation of problematic, incomplete, and contradictory ideas, norms, roles and rules – always in regard to everyday practical issues.

Now, between Archer's quasi-solipsistic – and paradoxically, monological – idea of 'internal conversation' (2003) and the over-socialized Meadian model of the 'dialogical' constitution of the self and society, there is a continuum of theoretical paths that can prove analytically useful. Indeed, constructionism (Burns and Engdahl,1998a;1998b) and interpretivism (Taylor,1995) are both compatible with the idea of the 'dialogical self' as both the mode of self-reflection and the ontological premise of socialization. Due to space limitations, I should only note that self-reflective agents experience *imaginative* and inner dialogues with imaginary others (endorsing certain world-imageries and normative orientations) – which 'inform' and prepare their external and actual discussions with *existing* others – by drawing on the *internalised* shared ideational background in their efforts to make sense of, but also (fallibly) reflect on, the various 'entities' at the other two levels of the constitution of society (the institutional and the structural).

Therefore, the idea of the 'dialogical self' constitutes the paradigm of this model of social interaction confronting the problem of the elaboration of macro-entities, which is a problem posed only within a shared context of imaginary schemes; in other words, the 'dialogical self' is the ontological premise of the possibility of discourse. And discursive socio-cultural interaction is responsible for the elaboration of culture, institutions and social structures. Again, this entails neither micro-reduction, nor emergentist irreducibility: both of these refer to causalistic conceptualizations of social action that start from the tenet that agency is the only causally efficient entity in societies, and then search for possible higher-level properties, causes and/or entities. Critical realists are right to claim that agency is synonymous with human intentional *praxis* working on material or immaterial societal macro-

entities and thus having both intentional and unintentional effects. But why should we discuss agency using causalistic terms with mechanistic and naturalistic connotations? Why should we place both agency and natural tendencies under the label of 'cause'?

The ontology of culture and agency requires an Anti-realist social ontology, but also an anti-naturalist account of the genesis of the social self, which internalizes the cultural context through socialization, but also imaginatively reflects on it. Falmagne (2004) has provided a useful version of the social self by arguing for a notion of the 'substantial self' which appreciates the multivocality of the self, as well as the tension this entails, without denying that, despite being non-homogeneous, the self is ontologically continuous since inner multivocality forms part of a continuous and concrete entity. Castoriadis' idea of imagination is a useful ontological premise for the continuity of the multivocal self. Castoriadis, like Archer, attributes the origins of the 'internal dialogue' to Plato, by making clear that a dialogue requires two different points of view – and 'therefore also the possibility of *putting oneself into question*.' (Castoriadis,1997:158)

Now, both ontogenesis and morphogenesis set out to explicate what we mean by the 'context/concept/activity-dependence' of social forms. However, for morphogenesis, which argues for an interplay between two distinct causes, the structural and the human, and which renders the latter cause the only efficient one, emphasis needs to be placed on time in order to sustain the temporal distinction between human interaction and structural elaboration. On the other hand, for ontogenesis, which mostly underlines the existential dependence of material and institutional settings on the elaboration of the ideational level, emphasis is laid on the constant ontological pervasiveness of the ideational level into the other ones: the theoretical and practical consequences of the context/activity/concept-dependence of social forms, which is given a secondary role by morphogenesis, now come to the fore; and the factor of time is rendered secondary – for it is an *empirical* matter which structure has been resistant to the ever-changing flux of the socio-historical domain and which one has not. This also means that distributional structures *can* pre-exist present human interaction, without this pre-existence implying structural autonomy and causality – which is what Figure 1 is meant to show.

Since our subject is context/concept/activity-dependence, time is *only implied* when we discuss the pervasiveness of the ideational level, which is in a state of constant – albeit slow – elaboration. And it is only implied, because what I call 'ontological pervasiveness' can be depicted through a temporal sequence of the following form: [ideational elaboration → (systemic alteration, differentiation and diversification)] → (structural transformation and diversification). This sequence also expresses the idea that the social imaginary schemata define the *representable*, the *meaningful*, the *doable* and the *valuable*, without, of course, deterministically imposing specific rules and codes or specific material forms. The categorical background sets the limits of the *possible* and, thus, reflective (re-)creation is always necessary in human interaction, for concretization processes cannot be determined by abstract imaginary schemes; it is only due to the creative powers of social agents, which are channeled in and through discourse, that collective creativity can exhaust the boundaries which are set by the social imaginary in each time period. After all, ideational elaboration is a very slow

process. And, in this sense, 'crystallization' and 'concretization' do not imply the absence of creative imagination from these processes. But the crucial ontological point is that the ideational elaboration is constant, the corresponding sequences are continuous, and the elaboration of material and institutional settings is always existentially dependent on the pictorial and categorical limits set by the ideational background.

Conclusion

Ultimately, the difference between ontogenesis and morphogenesis, when it comes to structural constraining, is not *a matter of degree*; it is misleading to claim that in morphogenesis structural constraining is of a higher degree than it is in ontogenesis – and, thus, to claim that ontogenesis just merely allows for more ideational pervasiveness. If materiality and its powers or its constraining effects on human production of meaning are one's only focal point, then changes in the structural domain can only be explained *in terms of the possible forms* (i.e. *genesis of morphe*) of materiality *within the exegetical framework of necessity*. But if we take the idea of the context/concept/activity-dependence of the structural domain seriously, structural transformation can only be explained *in terms of* the categorical limits of – or in terms of the changes in – the ideational level.

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