Introducing Perspectiles in Organizations

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Abstract

In this work we introduce the notion of perspectile. This is meant to be a flexible and yet clear way of constructing entities by means of a definition. Whenever we define something we create it in the very specific context of its application. Even though this may seem quite simple and intuitive, to properly model this idea a big conceptual effort is required. As we shall see, perspectiles are useful in many domains. Here we try to show how they work with the problem of organizational identity, where the challenge is given by the fact that organizations change in every respect and there is no easy way of modeling a machinery to get them across time. Instead of either denying the evident fact that they change in every respect or surrendering on its face, we try to get a picture of the conceptual grounds of this issue. Moreover, by facing this problem we will also draw some considerations about collective design.

Keywords: Constitutive rule, social object, role, qua-object, organization, identity, perspectile.

Constitutive rules and qua-objects

The notion of social object is related, according to John Searle, as we know, to that of constitutive rule (Searle, 1995, 2010). Constitutive rules, as opposed to rules like "keep right when driving", not simply regulate behaviors, but in a sense create them. Their basic structure is the famous "*count as locution*" (X counts as Y in context C) and their defining character. In this way they specify behaviors and are the basis for the creation of social objects, as in the classic example of money: the bills (X) printed by the Mint count as money (Y) in a certain State (C).

The problem is that, according to Searle, social objects, strictly speaking, do not exist. They do not exist in the same way as we say that there are fundamental particles that make up the universe. When we talk about social objects such as governments, money or universities, according to Searle, we do not refer to existing entities as may be material objects, rather social objects should be considered as "placeholders" for patterns of actions described by systems of constitutive rules which Searle calls institutions, something that has to do with human cognition, a kind of sign to indicate certain paths to follow to perform a certain activity (Searle, 1995), p. 57.

For Searle social objects do not form a distinct class of objects, and this, in our view, is a limitation of his theory: the entire *The Construction of Social Reality* focuses on social objects, and these do not exist for Searle. We believe it is useful and important to find instead that "objectual counterpart" – social objects – whose absence in Searle's theory makes it impossible an in-depth analysis of social reality. This need has led us to connect the problem of the structure of constitutive rules to the problem of *qualification* (Back, 1996), that is the problem to consider something *qua* (as) something else.

Kit Fine addresses the problem of *material constitution* under this perspective (Fine, 1982). Consider the classic example of the problem of identity between the statue – suppose of Goliath – and the amount of matter that constitutes it; it could be argued that, although occupying at a certain moment the same spatio-temporal position, the statue and the matter of which it is composed, however, have different properties: only the statue, for example, has the property to cease to exist if it were to be melted.

According to Fine a theory of constitution, equipped with a theory of qua-objects would solve the problem of identity; he argues that the statue is something new, a genuinely new object that exists in the real world and the statue would be seen as a qua-object, it would thus be *that* matter – that Fine calls its *base* – *qua* "having the shape of Goliath" – according to *that* certain description or property, that Fine calls *gloss*. On the other hand, qua-objects are used to solve problems concerning the *material constitution* of objects, but do not fulfill all the problems relative to their *social constitution*. Fine's qua-objects are too "rigid" to deal with the reality of institutions and organizations (Bottazzi, 2010), characterized by *roles*¹ defined by constitutive rules.

Perspectiles

Therefore it is necessary to introduce a new concept, that of *perspectile*. Consider for example chess players who change in a single game the chessboard and the pieces. Consider a specific queen, "*a certain piece of wood* qua *having the role of white queen in that particular game*". By accident, during the game from time to time bases – the pieces of wood –

¹In (Masolo et al., 2004) the notion of role has been extensively and formally characterized. As social concepts, roles are entities that have to be distinguished both from mental entities, as they are public, and from abstract entities, as they are created by definition and temporal. The specific difference is in their *relational* nature (they necessarily depend on other roles or on other social concepts, as in the case of *Teacher-Student* or *Agent-Patient*) and in the fact that roles are *antirigid* (i.e. to play a certain role is not an essential property).

change, say, three times. According to Fine we will have just three things, i.e. three pieces of wood. We believe that there is an individual, the *perspectile*, which includes the three bases in one single entity, and that stays the same during all phases of the game; this is because in the context of chess it is not important – given certain restrictions – what plays the role of queen. Its value is positional. This means that perspectiles are therefore "more flexible" than Fine's qua-objects. They *are able to* change their bases, depending on what is *constitutively* established by their gloss, and depending on how their *role* is defined. For example, unlike the case of chess pieces, who is President of the Government matters, because to the base, to the one who plays that role are constitutively associated specific institutional responsibilities.

The perspectile is then that objectual counterpart, that object that in Searle's ontology is lacking but necessary. The perspectile is *Searle's social object regarded as a token*, that "X qua Y in C". The term perspectile is to emphasize the fact that this object exists as something put into perspective by a role, it is in a system, and what exists of it, its properties, is what the system we have built and adopted *filters out* from the properties of the base².

In figure 1 we tried to schematize the main relationships and entities that are involved in taking into account perspectiles. As we said, the bases could change without affecting the identity of the perspectile. To complicate a bit the situation we can imagine that Ada and Lucy, two chess players, lose the piece of wood that plays the role of white queen in their game. Because the one they use to play is the only chess set available to them, they decide to use a coin as their white queen in the game. Similarly to (Masolo, Guizzardi, Vieu, Bottazzi, & Ferrario, 2005) we assume these following conventions:

- individuals (instances) are represented in type with small letters;
- *i of* is the "instance of" relation between categories and individuals;
- *PR* stands for perspectile;
- PO stands for physical object, something that in this approach is not strictly dependent on conventions and definitions, as social concepts and roles are;

- *RL* stands for <u>role</u>, a social object, intended as a (social) type, something <u>defined</u> (*DF*) by constitutive rules, in this case the rules of chess;
- *CF* is the relation of <u>classification</u>, that holds among roles and, in this case, physical objects;
- *DS* stands for description, the system of rules that determines the behavior of roles by defining (*DF*) them;
- *eSD* stands for specific existential dependence³ that holds between two individuals. Basically, *x* is dependent on *y* if and only if necessarily the existence of *x* implies that of *y*;
- EQ − D stands for "equivalence by definition", this is a relation that holds between the different bases of the perspectile and considers all of them, according to the chess rules, as equivalent;
- *i* stands for the <u>inherence relation</u>, a particular case of specific existential dependence that holds between different bases and the perspectile; this means that the perspectile is dependent on all its bases through time.

According to our model, the white queen in Ada and Lucy's game is a perspectile, an object made of the definition of its role and two different physical objects at a time: a piece of wood and a metal coin.

The qua-individual is therefore included within the concept of perspectile, being, in a sense, its "istantaneist version" or its snapshot. If we were to photograph a perspectile at a given time t we would see that it is a qua-individual, since for every moment the perspectile has some object as its basis. If we were to film it, we would see instead a change of different bases. This allows us to call a qua-individual an "instantaneous perspectile".

At a superficial glance it might seem that introducing perspectiles is simply a way to argue that sociality is made up of different points of view and different opinions, and this idea is certainly not conspicuous for its originality. But this is not what we want to support. The perspectile is not strictly speaking a point of view, but it is an object that forms a whole with its point of view, that is with its role. Situated next to others according to a system of rules, it creates the institution as a token. It is the system of rules, the institution as a *type* that, if anything, could be considered as a *perspective* on a certain set of processes of human interaction, but this should be understood in a metaphorical sense. Perspective, then, means that people, human beings - Ada and Lucy, for example - and objects – such as specific pieces of matter – that participate in an institutionalized framework of interaction, are transfig*ured* by the rules of this framework, become objects that are separated both from the concepts of the game, and from themselves, they become "Ada as the player who moves the black" and "Lucy as the player who moves the white", "that particular piece of matter as Ada's white queen", and so on. Thus,

 $^{^{2}}$ The term was adopted on the basis of Gilles Deleuze's *objectile* (Deleuze, 1988).

Unfortunately Deleuze on one hand is not interested in the social and institutional aspect of the problem of objectiles, on the other hand, he does not make a systematization of this concept, using it as a vague interpretative tool for his analysis of the philosophy of Leibniz. Another concept that perspectile seems to have a similitude with is that *variable* embodiment later developed by Kit Fine (Fine, 1999). Even the variable embodiement are affected by the same basic flaws as *qua* and objectiles; they are only useful to solve problems that have to do with the nature of material objects (Koslicki, 2008). For more details see (Bottazzi, 2010).

³See (Husserl, 1901/1973), (Simons, 1987), (Fine, 1995) and (Vieu & Aurnague, 2007).

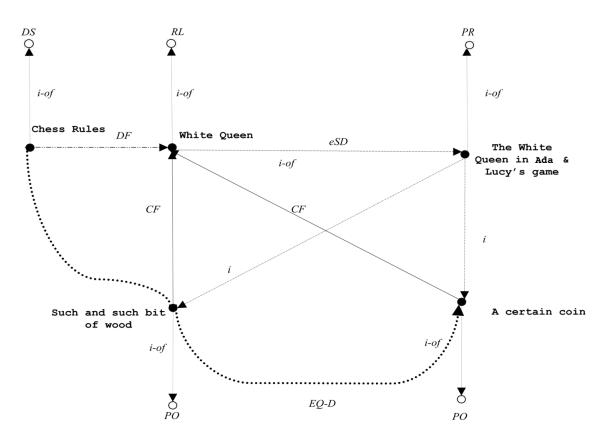


Figure 1: Different bases do not affect the identity of the perspectile through time.

perspective means that what exists in a context – perspectiles – exists only in that context, that is only in the logical space of its rules.

We will not analyze here the theoretical consistency of the concept of perspective; the notion of perspective has been variously involved in explaining human interaction. George Herbert Mead, at the beginning of the last century, was one of the first and most important theorists: perspective taking, which involves the concept of role, explains the formation of the social Self (the famous distinction I-Me), through the notion generalized other, a "view" of oneself functional to organized interaction (Mead, 1934/2005). More recently, in the intersections between philosophy and cognitive science (folk theory), the attention around the importance of perspective in the field of simulation has been growing; in order to understand, and to read the other's intentions, it is necessary to put ourselves in his/her point of view, simulating his/her mental processes⁴. Though we want to stress the importance of these studies and the need to integrate them with the notion of perspectile in future works, we cannot avoid to mention, already at this point the *epistemic* character of these approaches.

Perspectiles are not "opinions", they are *ontological*: that particular queen, considered as a whole with its rules and the agreements that created them, once that these agreements have been made, exists regardless of our intentions or of our desires.

Perspectiles depend on a *reality*, albeit from a *defined* and *stipulated* institutional reality. They are the result of a classification: the point of view is, in this case, that of definition. This makes them, in a sense, *absolutely relative* and *relatively absolute*⁵. The role, when classifying an object (or more than one object through time, as we saw in the case of the queen), not only cuts and reduces, so to speak, the properties of the object, "showing" us only a few aspects of it, but precisely for this criterion, it *adds and subtracts properties* to the perspectile, properties which belong to the realm of institutions.

Some hypotheses on social organizations as complex perspectiles

Social organizations may be viewed as a complex perspectile that has as its basis a collection of perpsectiles and as a gloss a decision-making system. Each individual perspectile would then be a special "brick", which brings with it part of the structure of the house. I.e. it cannot be placed in any position whatsoever: by its very nature it is meant to be placed in a way rather than another. This is thanks to the relational

⁴It is not by chance that this theory is known under the name of simulation theory (Goldman, 2006), (Gordon, 1986).

⁵In this aspect of institutional autonomy of the perspectile we believe we have found a sort of "objectual counterpart" of what Ota Weinberger (Weinberger, 1998) said for institutional action; unfortunately, for the sake of this contribution, we must limit ourselves to this simple remark.

properties that, through roles, are "inherited" by perspectiles and that act as basic "glue" for organizations.

This allows us to offer a solution to the problem of *synchronic identity* in organizations. If we consider as part of organizations only people and not perspectiles, if dealing with two organizations with the same members, we could not make a distinction. If we consider organizations as consisting simply of roles, we could not distinguish between two organizations that have the same structure of roles and different people as members (Bottazzi, 2010), (Sheehy, 2006).

The problem of *diachronic identity* is more complex and articulated. The central question is: How does an organization stay alive? In other terms, how is its identity maintained over time? The most convincing answer in the literature is probably that of Slater and Varzi (Slater & Varzi, 2007), who argue that the identity of the organization over time is a matter of collective acceptance. What interests us is to understand *how* this happens and, in that sense, we believe that a good start is trying to understand what are the key players in the game.

If we look at the ontological nature of perspectiles, we can now see how these are "flexible enough" to allow, in principle, the continued existence of organizations over time in spite of their members, i.e. persons, changing. People can change, but the agents – that is "*individuals in that specific role*" – may stay the same through time, if the definition of the role allows it. *From the system's standpoint*, there must be that specific agent, but that specific agent may be a "specific someone acting as", no matter who is the basis, if Sam or Luc, it suffices that he displays certain features or make certain things.

Let's consider a firm, called "Ontobusinness Inc.". For simplicity, there are just two people woorking in it: Sam and Luc. The former is the president while the latter is an employee. As we said, in a static situation we have "instantaneous perspectiles", therefore we can represent this situation as involving qua-individuals, Sam-qua-President and Luc-qua-Employee as in figure 2. Here *P* stands for parthood, that holds between the "instantaneous perspectiles" and the organization itself and *SUBORD* and *SUPERORD* stand for two very basic complementary relations of subordination and super-ordination that hold between a president and his/her employees.

Through time, we can imagine that, for example, different people can play the role of president inside the corporation at stake. Sam, then Ada and, finally, Lucy can play the role president of Ontobusinness Inc. without affecting its identity. The specific, yet complex, social individual that is the perspectile "President of Ontobusinness Inc." is therefore made of the instantaneous perspectiles Sam-qua-President, Ada-qua-President and Lucy-qua-President, as is shown in figure 3.

The fact is that if we look at any example, the links between base and gloss, between person and role, creating the institutional and perspectilical agent can be broken and the rules that specify roles and their identity conditions may be changed. The ability to intervene at all levels in the perspectilical structure, by recruiting people, judging them at first essential, then unnecessary, changing hierarchical relations and action plans is a specific feature of organizations.

In order to understand the issue of diachronic identity we must therefore look at the *decision-making system*. It is the very *possibility of modifying its own plans* through decisions regarding agents taken as a whole as members of a certain collectivity – typical of organizations – at the basis of further simulation activities.

This is just another way to, perhaps more narrowly, understand simulation, which concerns the specification of rules and the sense of the organization, namely the social planning. Simulation here is to be understood in a sense close to the creation of a technical artifact⁶.

Establishing a parallel between technical artifacts and organizations means considering the design of an organization as a specification of a system where the system is virtually disassembled in its lowest terms, organized into subsystems that interact in their turn with the specifications of the system considered as a whole. The typological structure of the organization is then subdivided into roles, which in turn can be structured into sub-organizations. The same specification, the same organizational structure can then be implemented in different ways, i.e. different individuals and contexts may instantiate it.

The perspectiles, in this process, are duplicated in actual perspectiles (who or what is actually classified in a given moment) and virtual perspectiles, i.e. perspectiles that are not strictly institutional, which are not recognized in that given moment. The possible configurations of virtual perspectiles are due to the relationship that exists between base and gloss. Regardless of who is actually classified at that time by a social role, virtual perspectiles consider all or some of their possible bases, which would come to be potential candidates for a change in the concrete setting of the organization; among them, also those that consider only ideal individuals as their bases in such a way that it is possible to compare ideal and actual perspectiles and see if, for example, the actuals meet the specifications of the system. In other words, to see whether the bases, i.e. individuals are suitable to play their role. The virtual perspectile is therefore something more general than both the actual ("John-as-worker") and the ideal ("that-specific-agent-able-to-produce-an-ideal-numberof-pieces"), that is any object that could replace the actual perspectile because it respects the constraints imposed by the context ("the minimal criteria imposed by the factory").

This in turn leads to further issues for the designers of the change in the organizational setting: is it necessary to change the basis or the gloss? Or we need to change the relation-

⁶The parallel between technical artifacts and social reality has a long history, which we won't report in this paper, we would just like to point out that Searle's work moves from the consideration of the artefactual object in order to sketch the social object (Searle, 1995). For further analyses in the context of analytic philosophy, see (Kroes, 2003) and (Miller, 2005), (Miller, 2008).

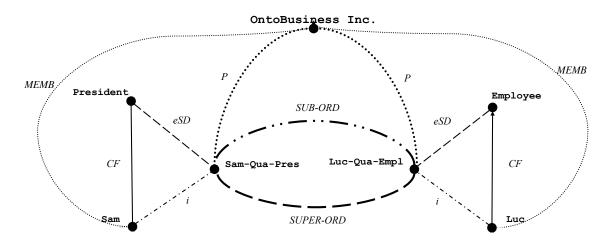


Figure 2: Organizations and "instantaneous perspectiles" (qua-individuals)

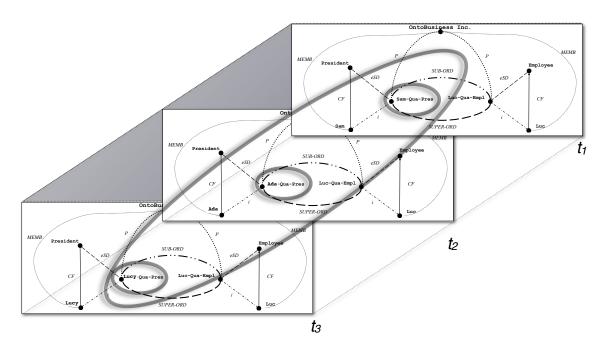


Figure 3: Perspectiles and different role players through time

ships between the key elements? Thus, what we can do with this mechanism is to construct comparisons between possible configurations in the development of collective projects.

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