

**On Minimal Relations:  
I. The Ontology of Relations in Aristotle and Spinoza**

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The notion of relation is as old as philosophy itself. It appears in philosophy in a great deal of ways: As a logical problem or a controversy. As an interpretative, representational, functional, formative or constitutive idea. As an idea of how things are or thought to exist, appear and express themselves. Or how they are actually articulated or disposed, intrinsically or extrinsically, intramentally or extramentally, substantively or figuratively, in realist or conceptual schemes and so on. But beyond the ubiquity and immanence of relations, some philosophies have been accrediting to them with one of the most eminent standings among all philosophical notions. In an effort to surpass the old scholastic disparagement of a relation as a deficient mode of being, an *ens minimum*,<sup>1</sup> Rodolphe Gasché elevates the significance of relations as “minimal things” in a positive sublime sense: As the “smallest, hence most elemental issues or matters of concern to philosophical thought,” as the “most basic and simple of all philosophical problems” (Gasché, 1999, p. 2). Similarly, Gasché quotes that Julius Jakob Schaaf speaks of philosophy essentially as a “science of relation (*Beziehungswissenschaft*),” wherein “the being of relation [*Beziehungsein*], precisely because it is an *ens minimum*, is not an object among objects, a thing among things, but reveals itself to be the trans-objective as such.” Hence, it is exactly by means of this trans-objective dimension that “relation represents the absolutely decisive, indeed, sole category” of philosophy (Schaaf, 1966, p. 278).

This is why I want to present here a first contribution of mine toward a philosophical inquiry of the concept of relation from a minimal, ontological point of view. Undoubtedly, although the concept of relations traverses almost the totality of the philosophical discourse, it is not everywhere in philosophy that it is discussed *per se*. Therefore, I have decided to deal here with just two philosophies, that of Aristotle and Spinoza, which at least appear to pose explicitly some of the key features of the concept. Again, although the issue of relations is not directly addressed, as such, in these philosophies, a relational conceptualization is clearly intelligible in them. Through a palpable and conclusive argumentation, these philosophies develop and share an

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<sup>1</sup> Thomas Aquinas is quoted saying “*relatio praedicamentalis est accidens minimae entitatis*” (“a predicative relation is an accident of the least being”) by Constantine Cavarnos (1975, p. 83).

understanding about relational situations, despite the fact that it was much later in time when, essentially after the 19<sup>th</sup> century and in the context of pragmatist and sociological discourses, when the analytical concept of relations was first set forth. Moreover, I have isolated some examples of a pragmatist and sociological corroboration, placed at a final appendix, in order not to disrupt the continuity of the preceding philosophical presentation of the topic. However, in order to be able to clarify the speculative perspectives and the exploratory formalism, through which I intend to proceed, I start with an abbreviated preliminary discussion of the ontological frame that I will be following in my inquiry of relations. And this is the pivotal ontological scheme of Alain Badiou.

### **For an Ontological Definition of Relations**

So, let me start with the discussion of an elementary ontological formalism through which the notion of relation may be defined comprehensibly and succinctly. In fact, instead of following the standard definition of predicate logic, I will rely here upon a more rudimentary set-theoretic construction. Moreover, to avoid the unnecessary (for my present purposes) complication of mathematical technicalities and the use of an exotic notation (for the non-pundits), I am going to follow certain fragments of a proficient elaboration of ontology based on set theory that the philosopher Alain Badiou has developed in his first *magnum opus*, the book *Being and Event* (2005). The starting point of this ontology is Badiou's conviction that "the multiple is the regime of presentation; the one, in respect to presentation, is an operational result; being is what presents (itself)" (*ibid.*, p. 24). Thus, Badiou names *situation* any "presented multiplicity," i.e., an appearing of reality at the most minimal (I am tempted to say 'naked') level, a presentation of the world that is only structured under the operation of "*counting-as-one*" applied to every presented multiplicity (*ibid.*, p. 24). So, from now on, I will be following Badiou's terminology: instead of things or entities, etc., I will be talking about multiples, and instead of the corresponding sets or collections, etc., where they belong, I will be referring to situations.

Up to this point, in Badiou's ontological setting, the only differentiation among multiples that can be done comes from two fundamental operations: the operation of *belonging* and the operation of *inclusion*. On the one hand, we can say whether "a multiple is counted as an element in the presentation of another multiple" and, on the other hand, whether "a multiple is a sub-multiple of another multiple" (*ibid.*, p. 81). In other words, a multiple is either a constitutive element of a situation or it is included in a constituted situation. There is no other way that a multiple can be related to any other multiple. But is this enough? Don't we need more ontological visibility? I think, yes, if we want to elude the static inertia of just counting "oneness" or distinguishing belonging-vs.-inclusion in the presentation or the composition of beings as merely "consistent multiplicities." Yes, we need a finer ontological "discernibility," if we want to grasp the grammar of the immanent processes of the uncountable finitude and the discountable contingency that enable beings to become or to vanish, to change or to abide, to create or to perish. In fact, through his notions of *event*, *truth procedure* and *subjectivation*, Alain Badiou has taught us how we may follow the unfolding of variability at the most extreme end, the maximal

level of abruptness, the genesis of the new. However, other instances of generative presentation of beings or constitutive logics of worlds could be thought too. For example, occasions, encounters, interludes, accidents, errancies, repetitions, improvisations, experimentations, etc., might all be pro-evental (perhaps less, or deficient, evental) instances, which nevertheless deserve to be theorized ontologically. On where are such “minimal things” founded? What are the minimal contextual conditions of existence of such evanescent ephemerality or tacit imperceptibilities? I believe, an answer might be given by the concept of a *relation*, understood as an ontological marker (or an ontological sign) of the multiplicities or existential differences of the being, as it is presented (actuality) or as it could be presented (potentiality) or as if it was presented (virtuality).

Now, the problem is that Badiou himself disagrees absolutely with an ontological resort to the concept of relation and he uncompromisingly rejects its invocation: “A being *qua* being is absolutely unrelated. This is a fundamental characteristic of the purely multiple as it is thought in Set Theory. There are only multiplicities and nothing else. None of them on their own is connected to another. ... Strictly speaking, this excludes the possibility that there might be a being of the relation. When thought as such, and therefore purely generically, Being is subtracted from any relation” (Badiou, 2006, p. 162).<sup>2</sup> But, Badiou’s manifest anti-relationalism has not remained unanswered. In an overall concise assessment of his work, on the occasion of the publication of Badiou’s latest major work, *Logiques des mondes*, Peter Hallward (2008) argues that Badiou’s overt aversion to relations invites obvious objections. In any case, since my intension here is not to engage in a discussion on *Logiques des mondes*, I would rather pass over Hallward’s quibble. However, I will risk a second neglect too. This time I will pretend that I am not aware of Badiou’s admonishment not to deal with relations. And still carrying on the Badiouian project, I will translate the standard set-theoretic definition of relation in a formal philosophical language, which is inspired by Badiou’s ontology.

Here it is how this could be done. Given a situation, the *Cartesian product* of the “situation times, or by, itself” is the set of all possible dyads (pairs) of multiples belonging to the situation. Every included subset in this situational Cartesian product is called a *relation* in the situation. In other words, a relation is a collection of pairs of multiples, i.e., it is the outcome of an operation of the type of “conjugating-one-by-one” (dyadically), an operation applied to the multiples of a situation (producing pairs not necessarily among all multiples). Moreover, the set of all conjugated pairs of multiples is said to constitute the *context* of the relation. Any two conjugated (paired) multiples are said to be *related* or that they are the *relata* of the relation. Of course, a single multiple might be the relatum of itself, in which case it is called *reflexive*. Also, when a multiple is not related to any other, it is called *isolate*. Sometimes, instead of “related,” one may say “associated” or “connected” or “linked” and, thus, any of the terms *connection* or *association* or *link/linkage* may signify the existence of an entanglement among relata, the fact that multiples are attached to each other by an existing relation. Furthermore, a set of multiples together with the web of their possible relational connections is often said

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<sup>2</sup> With some minor linguistic modifications: the word “being,” which in this English translation of the book of Badiou was rendered as “existent,” the word “related” rendered as “unbound” and “relation” (once) as “connection.”

to constitute a *network*.

At this point, we should remark that the totality of all possible relations in a situation – i.e., the *power set* of a relation that corresponds to what in the static unrelated case Badiou calls “the *state* of the situation” – may range anywhere in between two extreme instantiations. At the most maximal end, there is the *complete* relation/network, i.e., a complete pattern of interactions inside the entire constituency of a multitude of multiples. At the most minimal end, there is the *void* relation/network, i.e., a situation in which all multiples are isolates. This means that, on the relational level, the void of a relation in a situation is that seamless situation itself, that structured presentation of the being, from which the existence of the relation is continuously pumped out in the form of an excessive addition to the operation of conjugation. On the contrary, on the unrelated situational level, as Badiou has already demonstrated, the void of a situation is the “suture to its being ... that unplaceable point which shows that the that-which-presents wanders throughout the presentation in the form of a subtraction from the count” (*ibid.*, p. 526).

However, one could think of another process of emergence of the void in relations. The ontological way, through which a relation was defined here, leaves open the prospect to apply to the relation itself the same operational principle that is in action in its definition, essentially because a presented relation is a multiple too. Indeed, what defines a relation is the fact that it may act upon a multiple in order to conjugate it with another multiple. Therefore, one can possibly envision a meta-relation acting upon some relation-multiple and conjugating it with another relation-multiple. Repeating successively this procedure, since each time it is multiples what is produced, apparently, what is created (of course, each time, on the product of a product space) constitutes an infinite regression of relations conceived as multiples. Now, from the Zermelo-Fraenkel set theory, the way it was subsumed in Badiou’s ontology, we know that all this infinite regression may be reconstructed by a single multiple, the void. So, from the minimal or subtractive ontological point of view, all that a relation needs to convoke in order to exist is the void and, thus, in the Lacanian sense, a relation can be seen as a “hole” in the body of the real, with multiples standing at and delimiting the “border-effects” of such a “hole-piercing” – as Alain Badiou used to say in the context of the constitution of a “subject without object” (Badiou, 1998, p. 94).

Subsequently, not only ontologically a relation-multiple is destitute of any defining qualities or any perceived meaning, but it is also inadequate to assign “correlationally” (in the Cartesian or Kantian vogue) any denominations, such as “subject” or “object,” to *relata*, i.e., the conjugated multiples under a relation. Therefore, at the minimal ontological level, a relational conjugation might be any possibility that brings together (associates, attaches or aligns etc.) or tears apart (disassociates, detaches or muddles etc.) any multiples – beings, entities, things, ideas, processes or whatever. In fact, in the scheme of Badiou’s ontology, it was the process of truth, seen as the fidelity to the event, what could constitute a subject (Badiou, 2005, pp. 391-435). Similarly, here, we may say that it is the operator of “the fidelity to the relation” what might constitute *relata* as such. This makes perfect sense as far as one accepts two conditions of ontological minimality. The first is the idea that, on the one side, the operational instantiation of a relation is

representable by a “minimal” event and, on the other side, every event can potentially implicate some relation among the eventual multiples. The second condition prescribes that a “minimal” consequence to the transformative effects of a relation derives from the expressive perseverance of the relational context to force its ontological discernibility against the prospect of any subsequent relational recontextualization: it is such a “minimal” and ephemeral resistance what allows multiples to become resilient to change and, thus, to subsist ontologically. So, when multiples are in relations with other multiples, they are found in an elemental – in a sense, “molecular” – relational event, over which the momentary and fleeting truth of their expression is their sole existential guarantee.

Hence, to sum up in a nutshell the minimal way that a relation is assumed to work, i.e., the nuts and bolts of an ontological understanding of relations, I would say this: A relation is: (a) an *operation* (conjugation) and (b) an *image* (context).<sup>3</sup> As an operation, what a relation does is to conjugate multiples and, thus, to constitute the image of all conjugated multiples (i.e., their context). As an image, what a relation does is to present (or represent) the context of the relata and, thus, to be constituted by such an operation (i.e., conjugation of multiples). Notice that these are not two independent relational modalities, because they are both instantiating a common existential principle: operationally, a relation produces the context of presentation of the conjugated multiples, and contextually, the conjugative pattern of a relation is produced by a discrete operation.<sup>4</sup>

A final remark: Historically (as we are going to see in the next sections), philosophies, which were prioritizing one of the two relational aspects over the other and were not respecting the irreducibility among the relational operation and context, sooner or later, were condemned to fall into insurmountable conceptual predicaments. For instance, if a relation was seen exclusively as a presented context and its operational aspect was discarded, then the problem was to explain why an isolated decontextualized multiple would have to be different from a related contextualized multiple. Inevitably, the only way out was to entail the resuscitation of what was previously subtracted, i.e., the operational aspect of the relation, although now resuscitated not as such, but “naturalized” as a different form of presentation, always assumed to be inherent in the essence of multiples. In other words, the abandonment of the operational dimension of relations was necessitating the introduction of an additional predicate (or property or attribute) in the conceptual content of the presentation of multiples – independently if they were inert or conjugated. Similarly, if a relation was seen solely as a functional

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<sup>3</sup> This is a common situation in mathematics. For instances, a function (or a mapping from a set to a set) sometimes is identified with its rule of correspondence (operation) and sometimes with its graph (context).

<sup>4</sup> Anticipating the comments of the next paragraph and considering politics to be composed and constituted by relations among “political actors,” then, paraphrasing what Etienne Balibar has already said in his study of *Spinoza and Politics* (1998), I could say that, from the ontological point of view, “the ‘soul’ of the body politic is” *both* “a representation” *and* “a praxis.” However, “in the final analysis,” on the pragmatics of political performativity, I agree with Balibar that “the ‘soul’ of the body politic is not a representation but a praxis” (Balibar, 1998, p. 71).

procedure deprived of any representational context that the conjugated multiples might possess, then the problem was to qualify different modes of conjugation, which would eventually perform the same functional operation. Again, the only solution was to load the operator of conjugation with extra predicates (or properties or attributes) in order to make up for the withdrawal of the contextual representation of multiples.

## Relations in Aristotle

Now, I am going to juxtapose to the above ontological definition of relation one of the first philosophical treatments, in a broad sense, of the concept of relationality, according to the work of Aristotle and particularly Chapter 7 of his *Categories*.<sup>5</sup> Literally speaking, in his philosophy, Aristotle has never mentioned the word ‘relation’ in any definitive way. Instead he was talking about the category of “τα πρὸς τι,” a very ambivalent term, which was responsible of many quandaries in post-Aristotelian philosophies. This term is usually rendered in English as “relative things,” although its circumlocutory rendition would be something like “those referring toward something” – there is no word “thing” in the Greek expression. In any case, Aristotle defines τα πρὸς τι as follows in Greek: “Πρὸς τι δὲ τὰ τοιαῦτα λέγεται, ὅσα αὐτὰ ἄπερ ἔστιν ἑτέρων εἶναι λέγεται ἢ ὅπως οὖν ἄλλως πρὸς ἕτερον” (*Cat.*, 6a36-7). I would formulate a translation of this definition (slightly modifying the existing English translation) in the following way: “We call ‘those referring toward something’ (or the ‘relative things’) those which belong as such to something else or somehow they are referring toward something else.” In the next sentences, Aristotle explains that by “those which belong as such to something else” (using the genitive case in order to signify belongingness) he means some sort of comparison. And he adds that “those which are referring toward something else” (using the preposition πρὸς) are meant according to the faculties of habit (ἔξις), disposition (διάθεσις), perception (αἴσθησις), knowledge (ἐπιστήμη) and attitude (θέσις).<sup>6</sup> Furthermore, throughout the whole Chapter 7 of his *Categories*, Aristotle was making the following four main conceptual claims on relatives, which are listed here alongside the corresponding formulations of the above-mentioned relational ontology:

(A1) Relatives may have contraries or admit a variation of degree, but not all of them do (*Cat.*, 6b15-27). Ontologically: every relation is either binary-existential or oppositional or valued.<sup>7</sup>

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<sup>5</sup> All Aristotle’ citations are taken from Aristotle, *The Complete Works of Aristotle: The Revised Oxford Translation* (1984).

<sup>6</sup> In *Metaphysics*, Aristotle becomes a little more explicit with his typology of relatives: “Things are ‘relative’ (1) as double to half, and treble to a third, and in general that which contains something else many times to that which is contained many times in something else, and that which exceeds to that which is exceeded; (2) as that which can heat to that which can be heated, and that which can cut to that which can be cut, and in general the active to the passive; (3) as the measurable to the measure and the knowable to knowledge, and the perceptible to perception” (*Meta.*, V.15, 1020b26-32).

<sup>7</sup> In the modern terminology of social networks analysis, what we have named “binary-existential” or “oppositional” or “valued” relations correspond to the so-called *dichotomic*

- (A2) All relatives are correlatives, in the sense that every relative is reciprocated by another one – up to a linguistic terminological modification or coinage of new words (*Cat.*, 6b28-7b14). Ontologically: every relation is (by definition) reversible.
- (A3) Relatives may not exist simultaneously in time (*Cat.*, 7b15-8a12). Ontologically: every relation is conjugating multiples that may exist in time either synchronously or asynchronously.
- (A4) No “primary substance” (individual) is relative and most of “secondary substances” (species)<sup>8</sup> may not; only certain secondary substances are relatives (*Cat.*, 8a13-8b24). Ontologically: there exist multiples, which are always either reflexive or isolated with respect to every relation.

Of course, the fact that this list places relatives side by side with relations should not efface the irreconcilable and incommensurable disparity between the two concepts. In effect, relatives in Aristotle were defined by postulating a general typology of instances that epitomize all the particular cases. For him, this is not accidental, because throughout his work, constantly and consistently, Aristotle identifies the form (*εἶδος*) of things with their cause (*αἰτία*) or reason (*λόγος*) to exist<sup>9</sup> – in other words, as Gilles Deleuze (1992, p. 115) used to say, this is “the Aristotelian principle that to know is to know by cause.” On the other side, a purely ontological interpretation does not purport either to typify forms or to explain causes. In a sense, the outlook of ontology – at least in its Badiouian version that we are following here – is not the institution of an abstraction to the universal types of form and cause of beings, but conversely the destitution of a subtraction of all the redundant, embellished or encumbered, ways of the appearing of things that obscure the visibility of the real of their particularities.

Having said this, one has to take into account that the terminology in philosophical discourses has been changing through time and after the Scholastics the Aristotelian “relative” (“*πρός τι*”) was fully displaced by the notion of “relation.”<sup>10</sup> However, more or less, the same typology was kept on being understood.<sup>11</sup> Furthermore, there is a puzzling

*(binary) or signed or valued networks, respectively.*

<sup>8</sup> According to Aristotle, “primary substances” (“*πρώται οὐσίαι*”) are entities, which are neither said-of nor present-in anything – such as the concrete particulars of any natural kind – and “secondary substances” (“*δεύτεραι οὐσίαι*”) are the universals of their kind (*Cat.*, 2a11-16). For example, a concrete human individual, as such, is a primary substance and, as a human, is a secondary substance.

<sup>9</sup> Terence Irwin, the translator of the *Nicomachean Ethics*, comments on this Aristotelian proclivity in very clear terms: “Here form is closely associated with essence and definition; something achieves its form to the extent that it acquires the character that makes it the kind of thing that it is” (in Aristotle, 1985, p. 375, n1174a19).

<sup>10</sup> The Latin *relatio* and *relatione* are usually regarded as introduced in the first century A.C. by the rhetorician Marcus Fabius Quintilianus in his *Institutionis Oratoriae* (1975).

<sup>11</sup> For instance, this can be seen in the distinctions of Gottfried Leibniz: “Relations divide into those of comparison and those of concurrence (*concoours*). The former concern agreement

philosophical issue, which stems from Aristotle's insistence, in his definition of relatives, that "those referring toward something" ("τα πρὸς τι") should inhere within "those which as such are" ("ὅσα αὐτὰ ἄπερ ἔστιν") – or, in the terminology of the Scholastics, to identify *in esse* with *esse ad*. Roughly speaking, in *Categories*, Aristotle discusses such conceptual connections through the notions of predicates, properties, attributes or accidents ("συμβεβηκότα"). With respect to their logical status, all these arguments have appeared extremely ambiguous and controversial and, in the post-Aristotelian period, they have opened up an endless fuss of ardent refutations or confutations, particularly during the years of medieval philosophy. How is it possible for a single relation inhering in two relata to be simultaneously a predicate (accident) of each one of the two different relata? However, the dominant interpretation of Aristotle was irrevocably monist: no relation could be a shared predicate of two relata.<sup>12</sup> Consequently, there should exist two different predicates or accidents, which are inherited from the same relation, but are inhering in the two relata. Such speculations and presumptions were pestering logics until the end of the nineteenth century, when the advent of modern set theory and mathematical logic was able to give some definitive formal solutions.

Now, from the ontological point of view, a major question would be to hypothesize how Aristotle would be possibly conceiving the interplay between the two components of a relation, operation and context. The fact that Aristotle was explicitly and exclusively talking of relatives and not relations indicates a certain bias toward the contextual meaning of the concept of relation. However, in all his definitions and explications, he was constantly drawing attention to the fact that any relative is always a functional or action-based referential term. Therefore, perhaps a fairer assessment of Aristotle's position would be to place him somewhere in the middle between the notion of relations as contexts and as operations. In fact, such was the dominant understanding of medieval and Scholastic philosophers, who were accepting that there is a distinction, rooted in Aristotle, between two main types of relations: (1) relations according to speech (*relationes secundum dici*) and (2) relations according to being (*relationes secundum esse*).<sup>13</sup>

## Relations in Spinoza

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(*convenance*) and disagreement (*desconvenance*) (using these terms in a narrower sense), and include resemblance, equality, inequality, etc. The latter include some connection (*liaison*) such as that of cause and effect, whole and parts, position and order, etc" (in Leibniz, 1981, p. 142).

<sup>12</sup> Gottfried Leibniz was asserting: "I do not believe that you will admit an accident that is in two subjects at the same time" (Leibniz, 1970, p. 609).

<sup>13</sup> Here is what Thomas Aquinas was saying in his *Summa Theologiae*: "Some relative terms – such as 'master' and 'slave,' 'father' and 'son' – are introduced to signify relative descriptions themselves (*ipsas habitudines relativas*); these terms express things relative *secundum esse*. But other relative terms – such as 'mover' and 'moved,' 'head' and 'headed,' and terms of this sort – are introduced to signify things on which certain relations follow; these terms express things relative *secundum dici*" (Aquinas, *Summa Theologiae*, 1988, I, q. 13, a. 7, ad. 1).

Baruch Spinoza<sup>14</sup> is the first philosopher to give a definite answer to the ontological problem of the double constitution of relations, as operations and contexts. This can be seen in several places in his work, but perhaps the most manifest point is his notion of “*Deus, sive Natura*” (“God, or Nature”), a notion that comprises the flavor of the Spinozian conception of immanence. Of course, God is never denominated directly as a relation in Spinoza. But, taking into account what he understands as substance<sup>15</sup> and God,<sup>16</sup> as such, it could be assumed that the Spinozian God belongs to the Aristotelian category of “primary substances,” to which, as we have seen, two terminal kinds of relations may correspond: either the void or the reflexive relation – in a sense, either nihilism or pantheism. However, since “*Deus, sive Natura*” is conceived either as “*Natura naturans*” (“naturing Nature”) or as “*Natura naturata*” (“natured Nature”),<sup>17</sup> this maxim divulges the existence of an absolute relation between God and Nature. In the former case, the active participle ending (“-ing” in English) signifies the expressive or operational character of the relation, while, in the latter case, the past passive participle ending (“-ed” in English) points to its expressed or contextual stamp (sign). Note that the existence of such a relation does not contradict his notion of God as substance, because, for Spinoza, this is merely a relation between an entity and itself, since God and Nature are interchangeable and there is no distinction between the creator and the creation. In other words, by establishing the congruence of God and Nature in “*Deus, sive Natura*,” at the same time, on the ontological level, Spinoza is forging the univocality between operation and context – or between the act of an expression and the image of a representation – in any relational gesture.

Once again, let me stress that the previous contention is only an interpretation of how Spinoza is conceiving the instantiation of the God-Nature conjunction. Certainly, he is not developing any definitive or systematic treatment of the concept of relation and, as Vittorio Morfino (2006) has already argued, “no veritable thematization of the problem of relation” (p. 113) can be found in Spinoza. Moreover, Morfino remarks that, since the

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<sup>14</sup> All references to Spinoza come from his *Complete Works*, translated by Samuel Shirley (2002), denoted henceforth as CW followed by page number. However, all references to Spinoza’s *Ethics* are denoted, as usual, by E followed by a roman numeral = part, D = definition, P = proposition, C = corollary, S = scholium, Exp = explication and so on.

<sup>15</sup> “By substance I mean that which is in itself and is conceived through itself; that is, that the conception of which does not require the conception of another thing from which it has to be formed” (EID3).

<sup>16</sup> “By God I mean an absolutely infinite being, that is, substance consisting of infinite attributes, each of which expresses eternal and infinite essence” (EID6).

<sup>17</sup> “By *Natura naturans* we understand a being that we conceive clear and distinctly through itself, and without needing anything beside itself (like all the attributes which we have so far described), that is, God. The Thomists likewise understand God by it, but their *Natura naturans* was a being (so they called it) beyond all substances. The *Natura naturata* we shall divide into two, a general, and a particular. The general consists of all the modes which depend immediately on God, of which we shall treat in the following chapter; the particular consists of all the particular things which are produced by the general mode. So that the *Natura naturata* requires some substance in order to be well understood” (CW, p. 58).

*Short Treatise* and the *Appendix Containing Metaphysical Thoughts* and through the *Ethics*, the few times that Spinoza refers explicitly to relations (“*relationes*”), he only does this by conceiving relations in just two forms: Either as intramental modes of thinking, i.e., *Entia Rationis* (things of reason), which are “in our understanding and not in Nature” as *Entia Realia* (real things) are (CW, p. 59). Or as extrinsic denominations (or characteristics) (*denominationes extrinsecas*), contrasted with properties (*proprietas*), which are supposed to be intrinsic denominations (or characteristics) (*denominationes intrinsecas*) (EIID4Exp). In other words, presumably, for Spinoza, it would be in the idea of a relation the place, where one might decode the braiding of operation and context (or action and representation) that constitutes a relation as such.

However, although never named as a relation by Spinoza, his thesis of *parallelism*<sup>18</sup> does have a straightforward relational interpretation: “*Ordo et connexio idearum idem est, ac ordo et connexio rerum*” (“The order and connection of ideas is the same as the order and connection of things”) (EIIP7). In the language of our relational ontology, this thesis can be formulated as follows:

- (1) There exists a relation – called “parallelism” – among the set of all finite modes of extended substance, i.e., the set of things, and the set of all finite modes of thought or thinking substance, i.e., the set of ideas – such that a thing and an idea, which correspond under this parallelism, are called “parallel” (to each other).
- (2) The relation of parallelism is a one-to-one correspondence<sup>19</sup> between things and ideas, i.e., every thing has a unique parallel idea and every idea has a unique parallel thing. In other words, the idea, which is parallel to a thing, is in the context or in the image of representation of things as ideas, and the thing, which is parallel to an idea, is in the context or in the image of representation of ideas as things.
- (3) If there is a necessary causal relation in the set of all ideas (such that ideas are connected to each other in chains or series of cause and effect, i.e., through operational compositions of this relation among ideas) and if there is another necessary causal relation in the set of all things (such that things are connected to each other in their own chains or series of cause and effect, i.e., again through compositions of such a relation among things),<sup>20</sup> then the two causal networks of ideas and things are (almost) structurally isomorphic (equivalent) to each other, under the relation of parallelism.

Furthermore, since the human body is a particular mode of extension, there is an idea parallel to that mode. For Spinoza, it is just the human mind (or soul) the parallel idea to

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<sup>18</sup> Although “parallelism” is a term coined by his commentators, since Spinoza himself has never used it, its idea seems to be first created by Leibniz in his theory of a “pre-established harmonious” correspondence between the soul and the body (Deleuze, 1992, pp. 99-112).

<sup>19</sup> Up to now, we have been considering relations as subsets of the Cartesian product of a set with itself. However, relations between two different sets (as it is the case now) are defined as subsets of the Cartesian product between these sets.

<sup>20</sup> Chains of cause and effect among ideas or things might be *circular*, in the sense that an idea or a thing, which at some position in a chain is a cause, could become an effect, later on.

the human body: “we showed that the idea of the body and the body itself – that is, mind and body – are ... conceived now under the attribute of Thought and ... the Attribute of Extension” (EIIP21S).<sup>21</sup> So, if the body and the mind of some human being are connected isomorphically in their causal concatenations, do these entities compose some sort of duality? Is the human being a mere union of two parallels, the body and the mind? Spinoza says no. Surely, the body and the mind of the same person are distinct multiples, from the ontological point of view. But, semantically, in the way the descriptions of the corresponding substances can be conceived, Spinoza demonstrates that parallel things and ideas – and, in particular, the body and the mind – have to be, they are, identical: “Consequently, thinking substance and extended substance are one and the same substance, comprehended now under this attribute, now under that” (EIIP7S).<sup>22</sup> Thus, in some integrationist sense, it will appear later in the history of philosophy that the Spinozian concept of parallelism will be rekindled through the notion of “concrecence” of Alfred North Whitehead (1929) and the notion of “consubstantiality” of Kenneth Burke (1950).

Apart from the above causal parallelisms, on many other occasions, Spinoza alludes to the effects of relational entanglements among different modes of existence, if not insinuating directly on the substrate of the underlying interactions. A good example is how he envisions the traces (*vestigia*) that things or bodies leave on other things or bodies, with which they sustain relational interactions: “The human body can undergo many changes and nevertheless retain impressions or traces of objects and consequently the same images of things” (EIIPost2). In other words, what Spinoza describes here is the effect of a relation between two things or bodies, implicated from the transformative power of an enacted operation, the way it is imprinted on the produced contextual image. In this way, for instance, “imagination,” for Spinoza, becomes the sign on the human body of those relations (affectations), “the ideas of which set forth external bodies as if they were present to us, although they do not represent shapes” (EIIP17S).<sup>23</sup>

Next, let me go to Spinoza’s definition of the affects (in Part III of the *Ethics*).<sup>24</sup> In a completely naturalistic way, Spinoza divides the affectations of the body in emotions (*affectibus*) and passions (*cupiditas*), according to whether “the body’s power of activity is increased or diminished, assisted or checked” (EIIID3). This definition presupposes two things. First that all beings are endowed with a natural faculty that underpins the possibility of acting at a baseline level, so that any further changes in it might be subsequently gauged. Spinoza accepts the existence of such a universal and natural

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<sup>21</sup> For the mind-body problem in Spinoza, see Michael Della Rocca (1996).

<sup>22</sup> For this point, see Deleuze (1992, pp. 107-9). Moreover, Della Rocca (1996, pp. 133-6), in a simple manner, reconstructs Spinoza’s demonstration of the identity of mind and body.

<sup>23</sup> Such a relational point of view about the Spinozian conception of images and the imagination as signs is put forward in the important work of Lorenzo Vinciguerra (2005).

<sup>24</sup> Antonio Damasio, a neurologist, in *Looking for Spinoza* (2003), has made an interesting study of the conscious aspect of emotions, centered on the philosophy of Spinoza and presenting also empirical data on how the brain processes emotions.

possibility and he calls “*conatus*” the existential inertia, the inherent tendency toward self-preservation and activity that all beings inherently possess: “The conatus with which each thing endeavors to persist in its own being is nothing but the actual essence of the thing itself” (EIIIP7). It is because of the need to continue, to reproduce the feeding back of this impetus for an innate striving – habitually called “appetite” or “will” – what makes human beings identify beneficial things with their empowerment and harmful things with their disempowerment.

The second presupposition for Spinoza’s definition of affects is that for an affect to occur – so that the conatus of a being might change for better or worse – something needs to happen, i.e., the being should be immersed in a particular situation or should be engaged in a certain event. However, ontologically, every being is a multiple in a situation and whatever may happen (to it) occurs in the context of, or in relation with, other multiples of the situation. This means that every affect is necessarily affected by a relation<sup>25</sup> among multiples (beings) in a situation. Through this relation expressing an affection (or passion) – which, from now on, will be called *affective relation* – two things may happen. On the one hand, the implicated beings are enacting an operation, or performing an activity, in order to re-represent their images, or contexts, with respect to all other multiples present in the situation. Simultaneously, on the other hand, a second transformation is effectuated: this is a change of the conatus of the implicated beings in an affective relation, from a state possessed before to a state achieved after the enactment of the relational operation. Of course, in an affective relation, these two transformations (the reshuffling of the context/image and the change of the conatus/will) are not only concurrent, but they are conceptually contingent on each other too. Thus, what appears to be the constituted effect (i.e., the change of the conatus) happens also to be a constituting condition, which enables, implements the relational activity that expresses the corresponding affective relation. Therefore, any affective relation is embedded in a network among a number of connected states of the conatus, in such a way that, at each node, the conatus both constitutes the affective relation and it is constituted by it.<sup>26</sup> Moreover, the transindividual dimension of any affectional situation should not be forgotten and it implies that, in such a network of affective relations, the conatus of one being might be connected with (affected by) the conatus of other beings too.

The place in Spinoza, where the relational account of his theory of affects can shed some further interpretative light, is the discussion about the governance of the *multitude*. Antonio Negri, in *The Savage Anomaly* (1991), has made very clear that Spinoza employs two terms in order to talk about this issue, *potentia* and *potestas*, the distinction

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<sup>25</sup> Vittorio Morfino has already formulated this point by saying: “It allows us to argue that the passions are not the *proprietas* of the human species, of a human nature, but relations that *traverse* and *cross through* the individual, relations that constitute both its self-image and its image of the world” (2006, p. 117).

<sup>26</sup> The configuration of a *circular* chain of affective connections among the conati is always a possibility – as it was the case with the chains of cause and effect among ideas or things, which were discussed previously. Hence, for Spinoza, thinking and acting rationally is immersed inside the order of a relational-causal nexus, as thinking and acting passionately is also immersed inside the order of another nexus, this time, a relational-affective nexus.

between which is usually lost in English translations (but not in Romance languages). In fact, *potestas* is the authority, the command, the sovereign status needed to actualize the constitution of things and *potentia* is the force, the strength, the creative activity needed to implement the production of things. To understand how affective situations have an impact on power, in both notions, let us recall that human affects are not forged in blank sky or in a course of purely rational or utilitarian calculations. As Etienne Balibar (1998, pp. 84-8) has asserted, human affects fabricate the “social bond.” Hence, the affective account of how sociability is constituted is through a number of highly complex processes, which include such social and psychological mechanisms as “identification,” “ambivalence,” “fear of difference” – including all that Spinoza used to call “imitation of the affects” (EIIIP27).

When micro-movements of affection (or passions) flow through the multitude, the result is the emergence of a distribution of states of conati, which becomes a distribution of an agglomerated, but fragmented – collective, but individualized – power (*potentia*). As such, the multitude’s power is a flabby lump of dispersed and unfocused dispositions and, thus, it is extremely unstable and disharmonious. In Balibar’s words, “the more the body politic, that individual of individuals, develops its own powers, the more the real-imaginary complexity of social relationships as Spinoza conceives it is revealed as a principle of mobility” (p. 86). In the way he understands Spinoza of the *Tractatus Politicus*, Balibar claims that the “question of the passions of the multitude” becomes “an obstacle to rational decision making in the operation of any kind of assembly” wondering “to what extent is the multitude capable of governing its own passions?” (p. 58). Spinoza’s answer (demonstrated in EIVP37S) is nicely summarized by Balibar: “The unity of contraries – or rational identity *and* affective variability, but also of the irreducible singularity of individuals *and* the ‘similarity’ of human behaviour – is nothing other than what we refer to as society. ... For such a unity effectively to exist, there must be an authority (*potestas*) which can polarise the affects of individuals and direct their movements of love and hatred by defining once and for all the common meaning of good and evil, right and wrong, and by fixing the form through which men can ensure their own preservation by combining their individual strengths” (p. 88). But thence it would be tempting to ask: How is authority (*potestas*) related to power (*potentia*)? Is it possible that the scattered aggregated power (*potentia*) of the multitude might stitch up the tears in the body social, bridge the cleavages of the body politic and become able to transform a lumped conatus into a robust hegemonic power (*potestas*) of the multitude? Confident of the revolutionary potential of the multitude, Antonio Negri maintains that such a transformation is always possible to occur inside the multitude, and the only premise is the galvanization of the constituent power of the multitude: “Only power (*potentia*), by constituting itself, only the power of the many, by making itself collective constitution, can found a Power (*potestas*)” (2004, p. 15). Such are some examples of contestations around the relational perspectives that the Spinozian philosophy of immanence may trigger.

From a different, more general, theoretical angle, the previous problem of the relationship between *potentia* and *potestas* and the governance of the multitude is about a situation composed of *relations related to other relations*, i.e., it concerns the idea of “relations of

relations” – or the “complexity of networks,” as it is said today.<sup>27</sup> It is about the possibility that certain aggregate regularities, habits, ideas, rules, principles, values, etc., may emerge from an incongruous dissonant congregation of a multitude of singular multiples. Can such an emergence occur by virtue of an internal-spontaneous self-organizing *potentia* (as *δύναμις*) or is the intervention of an external-institutional normative *potestas* (as *ἐντελέχεια*) needed?

### **In Conclusion: Relationality vs. Correlationism**

Let me conclude with a return to the ontology of relations. From this speculative perspective, a relation, as a possibility, is nothing else than the potential of contextualized action in a situation, an action on and by multiples. This means that, ontologically, a relational action might be set up either by a multiple in order to conjugate itself with another multiple or by a “third” multiple in order to conjugate a “first” multiple with a “second” multiple. Phenomenologically, these are two distinct cases but, from the ontological perspective, the intelligibility of a relation does not depend on any teleology or any philosophical Ptolemaism, which assigns intentionalities, volitions, predispositions, interests, strategies, etc., “correlationally,” in terms of a sensing “subject” or a sensible “object” (Meillassoux, 2008). Neither a “subject” nor an “object” pre-exists unconditionally and *a priori*, in the minimal world of multiples or in the primitive realm of relations – ontologically, they all possess an eventual status such that they only may emerge, as such, after and because of the validation of a generic truth procedure.<sup>28</sup> Thus, correlationism is, in the last instance, completely a-relational: By prioritizing a primordial pole in a (cor-)relation and disregarding any other (cor-)relation, whenever this prioritized pole is absent, it expunges the possibility of the concept of relation itself, in a truly trans-objective – or, better, object-oriented – sense.

On the other side, relationality does not obliterate all the correlationist accessories of a finalist, behaviorist, intentional, strategic, programmatic, or whatever, action, which is centered around a transcendental subject. This is because any attribute or attitude, or even quality or predicate, of a multiple can be thought as a relation between what a multiple *is* and what *categorizes* it or portrays its qualities. A predicated one always divides into

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<sup>27</sup> In *Cinema 1*, Gilles Deleuze, talking about the Bergsonian *duration*, which composes a spatio-temporal *Whole (le Tout)*, was identifying this whole, or duration, by relations, as “a spiritual reality which constantly changes according to its own relations” (Deleuze, 1986, pp. 10-11). Subsequently, Deleuze identifies his notion of the *relation-image* (pp. 201-03) with Peirce’s (1867) category of “*Thirdness*” (the mental), which follows the other two Peircian categories of “*Secondness*” (action) and “*Firstness*” (affection). In a sense, Charles Sanders Peirce, while theorizing on the semiotic level, was not only inaugurating the relational tradition of pragmatism, but he was also anticipating some of the overwhelming perplexities of the relational emergent phenomena that a theory of immanent materialism has to tackle.

<sup>28</sup> So, if sometimes (specially in the appendix) we seem to yield to the pragmatist or sociological onomastics to call relata “actors,” – or even “actants” in the way of Bruno Latour (1987) – we are doing this, because we want to highlight that the relational constitution of such terms is a matter of a collocated instantiation of a possibility in an action carried out through a relation and a need to keep track of the ontological consequences of such a relational engagement.

two: A “naked” substance-multiple, destitute of any qualifications, and an “immaculate” quality-multiple, untouched by any attributive profession. Even in such an absolutized formal way, a relation establishes an ontologically egalitarian conception between the two conjugated poles, without the need to centralize the one and subjugate the other. Such is the richness of relationality – the wealth of networks – and the poverty of correlationism.

## **APPENDIX: Relational Accounts in Sociology**

Beyond philosophy, the concept of relations is extremely important in other speculative or empirical fields too. For example, Ernst Cassirer, in his seminal book *Substance and Function* (1953), has elegantly elaborated a neo-Kantian approach to derive a transcendental functional logic of relations, the way they appear in modern mathematics and physics. Now, contrary to what Aristotle was teaching, things are no longer presupposed by logic, but they are somehow generated processually by a relational “lawful series of progressions” (*Reichenfolge*) in his expression. Thus, it is generally accepted that almost everywhere “in the beginning is the relation,” as Gaston Bachelard used to put it (Bachelard, 1929, p. 65). Furthermore, several pragmatist philosophers were often stressing that if relations were to play such a pervasive and functional generative role, this could only happen throughout joint acts of expression and concerted performances in full-fledged actualizations of the whole range of potentialities that could be contributed and shared at a certain instance. Pragmatists had a name for such a contextual actuation of things: they were calling it *trans-action*.<sup>29</sup>

Reminiscent of the old renowned imagery of Heraclitus, the transactional paradigm has nowadays become the defining account and perspective of sociological relationalism – c.f., Mustafa Emirbayer’s (1997) “manifesto for a relational sociology.” In any social system, Niklas Luhmann suggests, “there are no elements without relational connections or relations without elements” (Luhmann, 1995, p. 20). Similar relational assertions are echoed among many of the “founders” of sociology. Karl Marx contends, for instance, that “society does not consist of individuals, but expresses the sum of interrelations, the relations within which these individuals stand” (Marx and Engels, 1978, p. 247). And elsewhere Marx remarks “capital is not a thing, but a social relation between persons which is mediated through things” (Marx, 1977, 932). Perhaps the site *par excellence* for a relational thinking in sociology is theories of social structure and agency – in particular, theories and analyses of social networks.<sup>30</sup> To give some examples of social mechanisms in relational analyses of various social phenomena, let me briefly comment upon a few characteristic circumstances of relational studies: strategic control, “game playing,”

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<sup>29</sup> Meaning an instance where “systems of description and naming are employed to deal with aspects and phases of action, without final attribution to ‘elements’ or other presumptively detachable or independent ‘entities,’ ‘essences,’ or ‘realities,’ and without isolation of presumptively detachable ‘relations’ from such detachable ‘elements’” (John Dewey and Arthur F. Bentley, 1949, p. 108).

<sup>30</sup> In this respect, Emirbayer (*op. cit.*) regards Pierre Bourdieu, Norbert Elias, Harrison White and Margaret Somers as prominent proponents of the relational view in sociology.

narratives and conversations.<sup>31</sup>

- John Padgett and Christopher Ansell (1993) have given an example of a relational study of strategic control of political processes in their analysis of the rise of the Medici in early Renaissance Florence. Against all individualistic rational choice notions of strategic behavior, Padgett and Ansell have developed the concept of “robust action,” as a constitutive relational process emerging from the contingencies of the dynamical entanglements among competing collective actors. In such situations, the goal of actors is to maintain their own high multivocality, flexibility and freedom of choice, as long as possible, while at the same time they are trying to narrow the options of their opponents. Therefore, certain actors positioned inside an appropriate web of multilateral influences can maintain their “flexible opportunism” by tactical maneuvering of their opponents. “Locked-in commitment to lines of action, and thence to goals, is the product not of individual choice but at least as much as others’ successful ‘ecological control’ over you” (*ibid.*, p. 1264).
- Similarly, in *What Is Sociology?* (1978, p. 130), Norbert Elias invokes “game playing” to explain his key concept of fluid “figurations.” In *Actors as Observers: A Theory of Skill in Social Relationships* (1991), Eric Leifer has found that, in tournament chess games, skilled players differ from novices not so much in that they are able to see more moves ahead, but rather in their ability to keep their own options open, while at the same time downsizing the range of their opponents’ viable choices. However, playing with an equal partner, skilled players are locked in a positional balance and sustain ambiguity in their play (“content ambiguous action” in Leifer’s terminology).
- On the issue of narrativity, in *Identity and Control: A Structural Theory of Social Action* (1992), Harrison C. White claims bluntly that “a social network is a network of meanings” (p. 67) and that “stories describe the ties in networks” (p. 65). Thus, Harrison White and Ann Mische have put forward the idea that it is through “bundles of narratives and discursive signals” that “*network domains*” are defined as “specialized fields of interactions characterized by clusters of relations and associated sets of stories” (c.f., White, 1995; Mische & White, 1998; Mische, 2003; Somers, 1992; Somers, 1994).
- Concerning conversations and narratives, in the *Interaction Ritual: Essays on Face-to-Face Behavior* (1967), Erving Goffman has investigated “co-presence” and the “interaction order.” What he found as important “is not the individual and his psychology, but rather the syntactical relations among the acts of different persons mutually present to one another” (p. 2). In this way, Goffman managed to develop a “sociology of occasions” with unit of analysis a game-like, unfolding, dynamic process occurring along cultural, social structural and social psychological

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<sup>31</sup> Furthermore, one should also mention that negotiations, translations, heterogeneous associations, “actor-networks,” etc., represent some typical examples of a relational perspective in the constructivist and ethnographic Science & Technology Studies (STS), as they were elaborated through the work of Bruno Latour (1987) and coworkers – their main conceptual predecessors being the philosophies of Alfred North Whitehead and Michel Serres. Graham Harman’s “object-oriented” metaphysics is a further development of these approaches on a post-Heideggerian direction.

dimensions. Another good example of relational conversational work is David Gibson's (2000, 2005) study of switching dynamics in conversational interactions among participants, who may sustain their own social relationships. Through formal network-analytic and statistical modeling, Gibson has revealed some very interesting patterns of how participants take the floor ("taking turns") in the presence of hierarchical (superior-subordinate) and horizontal (friendship and co-working) network commitments and what sort of identity transitions ("participation shifts") may emerge from one speaking turn to the next ("talking ties").

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