FORMAL ONTOLOGY AS AN OPERATIVE TOOL IN THE THORIES OF THE OBJECTS OF THE LIFE-WORLD: STUMPF, HUSSERL AND INGARDEN

Horacio Banega (University of Buenos Aires and National University of Quilmes)

It is accepted that certain mereological concepts and phenomenological conceptualisations presented in Carl Stumpf's Über den psychologischen Ursprung der Raumvorstellung and Tonpsychologie played an important role in the development of the Husserlian formal ontology. In the third Logical Investigation, which displays the formal relations between part and whole and among parts that make out a whole, one of the main concepts of contemporary formal ontoloav and metaphysics is settled: ontological dependence or foundation (Fundierung). My main objective is to display Stumpf's concepts of partial content, independent content, spatial wholes, sound wholes, and the different kinds of connection among parts, in particular, fusion (Verschmelzung). Second, I will show how Husserl improved this background, in particular with regards to the exact nature of the theory of manifolds (Mannigfaltigkeitslehre), in discussion with Georg Cantor, the father of set theory. Third, I will focus on Ingarden's use of formal ontology and on the different modes of being that can be justified by appealing to the concept of ontological dependence in its Ingardenian variations. If my interpretation is adequate, it should be inferred that formal ontology is the operative theory of phenomenological philosophy, and this must be acknowledged in its full significance with respect to the supposed independence of the phenomenological method since 1913. A further consequence, not developed in this essay, is that formal ontology can be mathematised.

1. Introduction

Husserl's theory of science, as presented in §11 of *Prolegomena to Pure Logic*, volume I of the *Logical Investigations*, implies a formal theory of all possible formal theories. This is due to the main idea that logic *is* mathematics—an idea opposed to Gottlob Frege's—and to the influence of Bernard Bolzano and Bernard Riemann, among others. This science of sciences is articulated by meaningful categories on the side of theory, categories that must be referred to as the *objectual domain*, which is determined by the ontological categories. In this way, we must take into account that, for Husserl, ontological categories are *formal* insofar as they are completely freed from any *material domain* of the application of the formal meaningful categories. Therefore, formal ontology, as developed in the third *Logical Investigation*, is the corresponding "objective correlate of the concept of a possible theory, definite only in respect of form."¹

Volume XXI of Husserliana² provides insight into the theoretical source of Husserlian formal ontology.³ In particular, it strives to define the theory of manifolds or the debate over the effective nature of what will later be called "set theory." Thus, what in §70 of *Prolegomena* is called a "Theory of Manifolds" (*Mannigfaltigkeitslehre*) is what Husserl

³ Gilbert Null, Peter Simons, and Kit Fine were the first to formalise the third Logical Investigation. In private electronic communication, Gilbert Null told me, "By the way, I advise you to replace Lesniewski's term 'mereology' for the term 'constituent ontology' when referring to Husserl's (realist) part-foundation theory. Lesniewski and his followers (Leonard, Goodman, Quine, Eberle, et al.) were all *nominalists*, and *mereology* is a *nominalist* part-whole theory, because it satisfies Goodman's Principles of Nominalism. Husserl's constituent ontology violates Goodman's Principles of Nominalism, so it is not nominalist ontology, and hence it should not be called 'mereology'. I know this usage has become quite extended, and you are the first I am telling that this usage is unacceptable. Its unacceptability is a direct consequence of a case I will make in Husserl's Realist Constituent Ontology of Dependence, where I will state that Husserl's Constituent Ontology of Dependence is not a mereology because it *violates* Goodman's Principles of Nominalism. So you will do your future self a favor if you henceforth avoid referring to Husserl's Realist Constituent Ontology of Dependence as a mereology." I think that Professor Null is quite right, so I will follow his suggestion. However, I also believe that "formal ontology" can be considered synonymous with "constituent ontology." Gilbert Null's most recent papers on this topic are "The Ontology of Intentionality I: the Dependence Ontological Account of Order; Mediate and Immediate Moments and Pieces of Dependent and Independent Objects," Husserl Studies, vol. 23, no. 1 (2007), 33–69; "The Ontology of Intentionality II: Dependence Ontology as Prolegomenon to *Noetic* Modal Semantics," *Husserl Studies*, vol. 23, no. 2 (2007), 119-59; and "Two-Valued Logics of Intentionality: Temporality, Truth, Modality, and Identity," Husserl Studies, vol. 23, no. 3 (2007), 119–59. The paper to which he made reference is provisionally titled "Stalking the Immediate Moment."

¹ Edmund Husserl, *Logische Untersuchunghen. Zweiter Band, Untersuchungen zur Phänomenologie und Theorie der Erkenntnis. Husserliana* XIX/1 and XIX/2, (ed.) U. Panzer (The Hague: Martinus Nijhoff, 1984), hereafter referred to as Hua XIX/1 and Hua XIX/2; tr. by J. N. Findlay as *Logical Investigations*, Vols. 1 & 2 (London: Routledge, 2001), hereafter referred to as LI/1 or LI/2. The passage quoted is from LI/1, 156.

² Edmund Husserl, *Studien zur Arithmetik und Geometrie. (1886–1901)*, (ed.) Ingeborg Strohmeyer (The Hague: Martinus Nijhoff, 1983).

investigated around 1886–93. He was, at that time, trying to develop his *Raumbuch*. So geometry, space and set theory are in the background of the whole of *Logical Investigations*, and particularly of his *Theory of Parts and Wholes*.

It is worth highlighting that "geometry" here makes reference to Riemann, famous not only for having promoted non-Euclidean geometries, but also for his work of 1854, *On the Hypotheses that Lie at the Foundations of Geometry*, in which he describes a "very general philosophical distinction between discrete and continuous manifolds."⁴ Discrete manifolds admit only such mode of determination or fragmentation as is allowed by the discrete transit from one individual to another, but the fragmentation of a continuous manifold always results in an individual of the same nature as that of the whole of which it is a part. This is the case with space, in one possible interpretation. The other issue worth noting is that in Riemann's theory, there is no room for intuition, be it Kantian or Husserlian. The nature of real space is a matter of empirical investigation, and mathematics is purely conceptual.

In this paper, I will present formal ontology as an operativetheoretical frame which phenomenological theories employ without thematising it explicitly as such. I will focus on some antecedents that thematised a similar statement. First, I will show how Carl Stumpf shaped his particular version of "phenomenological mereology" in his Über den psychologischen Ursprung der Raumvorstellung of 1873, in his well-known chapter 5 that deals with psychological parts. With reference to philosophical methodology, I will describe how he worked on the relation between conceivability and metaphysical possibility, and how this can be understood as compatible with phenomenological methodology. Then, following certain insights of Peter Simons⁵, I will develop the different kinds of wholes that can be found there. We can find the emerging Husserlian topology in the concept of "pregnant whole." But this concept of whole is not understandable at all without considering the concept of foundation or ontological dependence. It has been demonstrated that this concept of foundation is intensional in nature, but also that extensionality can be saved by adopting the topological strategy. Third, I will show how Husserl himself applied his formal ontology in the case of the relation of the elements of presentations in the fifth *Logical Investigation*. Serrano de Haro has claimed that this application of formal ontology is not as valid as might be thought at first glance. I will examine his criticisms to show that they are valid only if we introduce elements under the consideration of *Logical Investigations* which are alien to them, for instance, elements from *Ideas I*. Finally, based on certain insights of Roman Ingarden, I will try to apply the difference between abstract and concrete objects to a topic quite Ingardian in nature: dramatic structure. The relevance of the application of this difference to objects of this kind—that is, to consciousness and dramatic structure—is that both of them are objects of the life-world. In addition, dramatic structure is an abstract object that exists outside our own mental life, so it can be taken as a paradigmatic case of social and textual objects.

On the basis of my analyses, I shall draw certain conclusions about formal ontology and phenomenology: my point is that formal ontology is the operative theory in phenomenological philosophy, and that the significance of this claim can be fully understood only with respect to the independence of formal ontology from phenomenological method that has been *supposed* since 1913. But I intend this to be valid for phenomenology understood as Husserl himself understood it namely, as a science of the life-world.

2. Carl Stumpf: "in Verehrung und Freundschaft, zugeeignet"

Carl Stumpf (1848–1936) made a vast contribution to the field of experimental psychology and particularly to the psychology of sound and the psychology of music. This should come as no surprise if we consider that the School of Brentano, where he was trained, intended to develop a philosophy syllabus related to the experimental sciences of his time. While attending the lectures of Brentano himself, Stumpf, attracted by the intellectual paths he figured could be opened following the experimental methodology promoted by his mentor, set his mind to study philosophy.⁶ However, in philosophy he is better known as Husserl's professor. Franz Brentano could not act as thesis advisor, so he recommended his students to different professors who were able to perform this task. Stumpf's research came thereby to be supervised by Hermann Lotze, while Husserl's was supervised by Stumpf

⁴ Guillermo Rosado Haddock, "Husserl's Philosophy of Mathematics: Its Origin and Relevance," *Husserl Studies*, vol. 22, no. XX (2006), 193–222, here 210.

⁵ Peter Simons, "The Formalization of Husserl's Theory of Wholes and Parts," in *Parts and Moments. Studies in Logic and Formal Ontology*, (ed.) B. Smith (Munich: Philosophia Verlag, 1982), 113–59.

⁶ For a good introduction, see Denis Fisette, "Carl Stumpf," *The Stanford Encyclopedia of Philosophy* (Spring 2009), (ed.) Edward N. Zalta, at [http://plato.stanford. edu/archives/spr2009/entries/stumpf/].

himself. Stumpf was admired by the founder of phenomenological philosophy: *Logical Investigations* is "dedicated to Carl Stumpf with Honour and in Friendship."

In 1873, Stumpf published On the Psychological Origin of the Presentation of Space⁷, in which he established certain concepts that are currently called "mereological."8 In addition, it is possible to find theoretical strategies to justify his statements, which involve the complex relation between conceivability and possibility, that is to say, the relation between a specific skill or faculty and modalities. For Stumpf, a presentation of a colour without an extension is not possible; conversely, a presentation of an extension without a colour is not possible either. The variation of the members of the relation demonstrates—in what we would call today a "thought experiment"—that the decrease of one implies in some way the alteration of the other and vice versa. This variation is determined by the so-called "laws of essence" or, in Aristotelian terms, "generic laws." As is well known in mereological literature, this variation between different parts of a whole presents two sorts of parts: dependent parts and independent parts. Independent parts can survive separation from the whole of which they are part, whilst dependent parts cannot. It should be noted that Stumpf called these parts "partial contents" (Teilinhalte) and "independent contents" (selbständige Inhalte), and it was Husserl who undertook the new formulation in his third *Logical Investigation*.

Stumpf clearly states his point of view in the first lines of his famous chapter 5: "As if it were above all matters desirable and necessary to remember the phenomena of ordinary consciousness, which in this as in all cases prompt scientific inquiry."⁹ Regarding Stumpf's adoption of this standpoint, Robin Rollinger claims that "a more succinct statement in favor of the precedence of phenomenological considerations could hardly be hoped for."¹⁰ According to Stumpf, the case

to be accounted for and analysed lies in the fact that, in common perception, we have a presentation of a coloured surface, be it green, red or any other colour. He set aside considerations that appeal to muscular sensations and the concept that claims that one's own sensations are aggregates of smaller impressions, insofar as "in this consideration there is nothing interesting for the common sense." (PUR, 106) The case allows us to realise that two contents are presented, since we are able to differentiate them in one way or another: we say "that surface is red," but also, "the red of that surface is unpleasant to me." The contents are jointly presented in diverse ways, but what determines their relation is their belonging together or the affinity *between them.* Still more important, attention should be paid to the form of the combination in their presentation, what Stumpf calls "the modes and ways of presenting together." Once it is possible to establish what happens with the degrees of affinity between contents, the author will display the two main forms of combination in their presentation. Now the combination of contents is placed in the presentation. The (phenomenological) description that Stumpf presents aims at showing the relation these two contents will have, in one way or another, when "presented together" (*zusammenvorstellen*) and, as a consequence, he will not, for the time being, deal with the genetic question (the question of origin).

The first case under consideration is the conjunction of incompatible contents, which can work as a foundation or basis of a *judgement*. Take, for instance, the judgement "it is impossible that an iron be made of wood." If we agree with Brentano that every judgement is an ontologically dependent act of an originary presentation (a perception), allowing that in this case the presentation of iron is available to us, then the presentation of wood and a kind of combination *in the presentation*, which allows for the combined presentation, performs its role as the basis of the judgement. In this case, Stumpf does not tell us which could be that kind of combination, but he claims that the combination *could* be a kind of connection: "It may be a peculiar way of presenting together, but it is nevertheless a way of doing so."¹¹

The following case to be analysed involves the combined presentation of qualities perceptible by different senses, such as colour and sound. This is considered possible because we already know that they are different. If we always had access to sound qualities alone, and no contact with chromatic qualities, we would not be aware of their similarities or differences. The possibility of this perceptive situation

⁷ Carl Stumpf, *Über den psychologischen Ursprung der Raumvorstellung* (Amsterdam: Bonset, 1965). Hereafter referred to as PUR.

⁸ Again, see Gilbert Null's statement (note 3, above) about contemporary mereology and the theorisations of Stanislaw Lesniewski and Nelson Goodman. The primitive concept of both systems is the relational concept "be part of." For an excellent introduction, see Achille Varzi, "Mereology," *The Stanford Encyclopedia of Philosophy* (Spring 2010), (ed.) Edward N. Zalta, at [http://plato.stanford.edu /archives/spr2010/entries/mereology/].

⁹ "...als sei es vor allen Dingen wünschenswerth und nothwendig, sich der Phänomene des gewöhnlichen Bewusstseins zu erinnern, die ja in diesem wie in jedem Falle die wissenschaftliche Nachforschung anregen." (PUR, 106)

¹⁰ Robin D. Rollinger, *Husserl's Position in the School of Brentano* (Dordrecht: Kluwer, 1999), 102.

¹¹ "Mag es eine absonderliche Weise des Zusammenvorstellens sein, es ist eben doch eine Weise." (PUR, 107)

will depend on having particular acts of presentation alone. If we did not perform acts of combined presentation, we would not be able to perceive, for instance, the opera as a whole, despite the fact that those who support the first possibility claim that sound qualities alternate with visual qualities at such speed that *we may seem* to perceive the opera as a whole, and not first its music and then its *mise en scène*. Stumpf claims that "in this case the mere appearance of the presenting together would be enough; appearance which is made available to us in any case." He concludes the analysis by claiming: "In this case the contents belong together more closely than in the previous case; they are indeed still thoroughly different, but at least not opposed."¹²

Let us note that the argument begins with the impossibility of singularly presenting a complex event, assuming that the presentation is singular, and extends to the possibility of analysing the combined presentations regardless of their true origin. It is in this manner that I believe a characteristic feature of the theoretical strategy adopted by Stumpf arises, and it consists in establishing the matter in terms of the complex relation between conceivability, metaphysical possibility and necessity.¹³

If the *presentation* (perception) of the opera were conceived as a manifold of particular presentations that belong to each sensorial field involved (in this case, colour and sound) without any intimate relation among them, then it would be possible that the presentation itself were not one, but diverse in quantity and quality. Since he is analysing the presentation regardless of its true origin, taking conceivability as the starting point ("the mere appearance of the presenting together will be enough"), he is able to consider the psychological and meta-physical possibility of the presentation of the opera as *one* in which contents coming from different sensorial fields have been combined together, and whose combinations may be analysed. It seems to me that at this stage, the task being described is what will later be known as the basic phenomenological attitude in its noetic aspect: the analysis of the presentation *as such*—that is, after the epoché and reduction in their different psychological, eidetic and transcendental versions

have been performed, what is known in phenomenological literature as the *apodictic* epoché and reduction.¹⁴

Qualities of the same sense or sensual field can be presented combined when a positive affinity takes place: "We say that the contents belong to the same genus." We can simultaneously hear different sounds in the same chord. But we can also differentiate them. This is the fourth possibility of presenting together. Moreover, we can present the intensity, length and quality combined in one specific sensation. As Stumpf explains:

...not only will it be desirable to acknowledge a combined presentation of the diverse, but a particular should be differentiated according to different relations as well. Here, in any event, when it does not yet have to do with the genesis of the combination but only with the affinity of the contents, we may partly use the more general expression of synopsis.¹⁵

With these four cases of combined presentation, Stumpf goes on to consider and analyse the meaning of the relation of synthesis or association in the combined presentation. For this purpose, and bearing in mind our general objective, he divides the contents into partial contents and independent contents. Let me introduce the most-cited piece of Stumpf's work on mereological literature, which concerns its phenomenological origins: "And we determine as definition and criterion of this difference: independent contents are present where the elements of a complex of presentations could also be presented separately by virtue of their nature; partial contents where this is not the case."¹⁶ The first strategy, the one he will actually adopt, implies a case in which quality and extension are not jointly presented. Resorting to what are referred to in contemporary literature as "thought experiments," he concludes that it is actually impossible to conceive *pure* space without quality. But I cannot overlook the fact that the second

¹² "Es ist nun in diesem Fall schon eine engere Zusammengehörigkeit der Inhalte als im vorigen, sie sind zwar noch durchaus verschieden, aber wenigstens nicht entgegengesetzt." (PUR, 108)

¹³ Cf. T. Gendler and J. Hawthorne, eds., *Conceivability and Possibility* (Oxford: Oxford University Press, 2002); Graeme Forbes, *The Metaphysics of Modality* (New York: Clarendon Press, 1985), ch. 9; L. Reinhardt, "Metaphysical Possibility," *Mind*, vol. 87, no. 2 (1978), 210–29; and S. Yablo, "Is Conceivability a Guide to Possibility?" *Philosophy and Phenomenological Research*, vol. 53, no. 1 (1993), 1–42.

¹⁴ See R. Sokolowski, *Husserlian Meditations: How Words Present Things* (Evanston, Northwestern University Press, 1974).

¹⁵ "...sodass man nicht sowohl ein Zusammenvorstellen von Mehrerem, als ein Unterscheiden eines Einzigen nach mehreren Beziehungen hier wird anerkennen wollen. Immerhin mögen wir hier, wo es noch nicht auf die Genesis der Verbindung ankommt, sondern nur auf die Verwandtschaft der Inhalte, den allgemeineren Ausdruck der Uebersicht halber gebrauchen." (PUR, 108)

¹⁶ "...und bestimmen als Definition und Kriterion dieses Unterschiedes: selbständige Inhalte sind da vorhanden, wo die Elemente eines Vorstellungscomplexes ihrer Natur nach auch getrennt vorgestellt werden können; Theilinhalte da, wo dies nicht der Fall ist." (PUR, 109)

strategy he mentions implies an appeal to true, *external* experiments. Due to the state of the sciences of his time, he could not depend on external experiments to corroborate his hypothesis. I would like to stress that, in spite of appealing to common sense to tackle the research, he would not reject the idea of resorting to the laboratory to verify his main statement.

Stumpf's analyses up to this point lead us to conclude that extension and quality *seem* to be partial contents, but it is not yet clear to us if this perceived situation is caused by the true nature of the represented contents.¹⁷ In order to achieve his main objective, the version of the thought experiment Stumpf will use is what can be acknowledged as an antecedent of Husserlian eidetic variation. He will adopt the procedure of variation of extension in relation to quality, and modification of quality with respect to extension, in order to grasp the measure and proportion of their coordinate variation. If there is a coordinate and reciprocal variation of one regarding the other, Stumpf will have achieved his aim of demonstrating that they are partial contents, *in accordance with their own nature*.

In other words, if he can conceive extension separated from quality, then an independent content would be possible. The same applies to quality. Let us note that he *already* knows that extension and quality are partial contents, and what he is trying to verify is whether they are so in accordance with their own nature. In my view, it is in this sense that what is at stake here is an ontological realism with its coordinated epistemological realism, where the psychological contents can be considered to hold a one-to-one correspondence relation with the objects to which they make reference and to which I have access without distortion. Consequently, I have access to reality because I have access to the contents of my own mind. In mereological terms, Stumpf will try to prove whether extension and quality keep a relation from part to whole, or from part to part that makes up a whole. In other words, he will try to determine whether quality is a part, together with extension, of a whole, and whether extension is part of a whole together with quality. Stumpf executes a series of variations where the linguistic use as an expression or indication of what is being performed appears along with what he is trying to prove. This point has been emphasised by Barry Smith and Kevin Mulligan in their seminal research on Husserlian "constitutive ontology." We say that "color decreases and shrinks till it disappears," and what this denotes is that extension decreases and so does colour along with it.

It is clear, from what it has been claimed up to this point, that Stumpf thinks he is in a good position to assess that extension and quality "are partial contents, [and] they cannot exist in accordance with their own nature separated from each other in presentation, nor can they be presented in isolation." It seems worth pointing out that the concept introduced as such is the antecedent to the notion of ontological dependence, which implies not only metaphysical possibility but also *necessity*. It is in this statement, according to Margret Kaiser El-Safti¹⁸, that the notion of a whole *which is not a mere sum* is founded.

It is possible to sum up Stumpf's results by noting that he improved phenomenological methodology by implementing the relation between conceivability and metaphysical possibility, and that he succeeded in differentiating among different kinds of connections between parts, and, in consequence, diverse kinds of wholes. Finally, he was motivated by his confidence in scientific research as a model for philosophy, a confidence taken as positive for phenomenology nowadays.

3. Husserlian Constituent Formal Ontology

I have described how was it that Stumpf dealt with mereology regarding the psychological origin of the presentation of space. Husserl's improvement on this topic consisted of the application of his mathematical configuration, and his own version of part-whole relations was supposedly developed in discussions with Georg Cantor about emerging set theory. Therefore, Riemann, Cantor, Sophus Lie, Félix Klein, Bolzano and Stumpf lie at the root of the third *Logical Investigation*. I will develop the main concepts of this *Investigation*, and then I shall proceed with their applications to consciousness and, ultimately, to dramatic structure.

(a) Peter Simons' Three Concepts of Whole

There are at least three concepts of "whole" presented in the third *Logical Investigation*. (1) The first is a mere aggregate of individuals, which is what we find, for instance, in Goodman's calculus of individu-

¹⁷ See B. Smith and K. Mulligan, "Pieces of a Theory," in *Parts and Moments. Studies in Logic and Formal Ontology*, (ed.) Barry Smith (Munich: Philosophia Verlag, 1982), 15–110.

¹⁸ Margret Kaiser El-Safti, "*Carl Stumpfs Lehre von Ganzen und den Teilen*," *Axiomathes*, vol. 5, no. 1 (1994), 87–122.

als. In extensional mereology, it refers to the concept of arbitrary mereological sum, for example, the glass of water on my desk and my recent perception of Nahuel Huapi Lake. (2) The second implies an aggregate of individuals that is unified by a principle of unification. This concept is, in fact, rejected by Husserl because of the danger of an infinite regress. If *a* and *b* are unified by U, then there must be another U which unifies the aggregate a-b-U, and so on *ad infinitum*. (3) The third concept is that of a whole in a "pregnant sense." This kind of whole is one whose parts are unified by the relation of multilateral foundation. Husserl savs: "To talk about the singleness of the foundation implies that every content is foundationally connected, whether directly or indirectly, to every content." (LI/2, 475) Husserl believed that "content" and "object" are mutually co-extensive terms, so when he says "content," we can read "part," and we can interpret this statement as addressing the issue of the connectivity of the parts without a unifying principle outside the whole which performs that role.¹⁹

I shall next turn to an analysis of the relational concept of "foundation." First, however, I should stress what seems to be the issue here. What has to be rendered here is *the way in which certain elements hold together*. It appears as if this issue was born with philosophy itself. Aristotle, for instance, appears to have no other problem in his *Poetics* than to demonstrate that the form of the perfect poem is tragedy because of the way in which its main elements hold together, which means that a scene *has necessarily* to be followed by another one, thus implying a form of mereological essentialism.²⁰

(b) Foundation (Fundierung) and Ontological Dependence

It is by no means easy to develop, in a summarised manner, all the implications of the different interpretations of this concept, which is so central not only to Husserl's philosophy but also to metaphysics and ontology in general. Husserl's own reading of "foundation" implies "ontological dependence." If X is founded by Y, then X is ontologically dependent on Y. In modal terms, following Simons' interpretation, this means that if X exists, then Y also necessarily exists, and this means that they exist in *all* possible worlds, because the interpretation is based on a reading of modalities as *de re*.

According to my own interpretation, the origin of this concept lies in the exact parallel between logical significative categories and logical ontological categories, as specified by Husserl in Prolegomena, which demonstrates that the modes of connection between objects in a specific domain are *congruent* with the modes of connection between the sentences about those same objects in a theory that includes them as domain. This does not involve a one-to-one correspondence or a mirroring between objectual domain and sentences, but, rather, a verification of such correspondence between the modes of articulation of sentences and the *modes of construction* of states of affairs. This seems quite related to a thesis of the *Tractatus*, but what seems more important as the determining feature that causes sentences to be a theory, even the theory of all theories, is the *connective link*, or *founda*tional link. This link is structural or functional. It is not a single nexus, but a connected series of them, which shows or bears deductive connectivity. Now, this deductive connectivity seems to have the concept of foundation as objectual counterpart. If this interpretation is correct, then the logical relation of implication is in correspondence with the ontological relation of foundation. And, if we bear in mind that in a singular process of inference from true premises to true consequence, the consequence preserves the truth, then what is preserved in the process of foundation is *reality* (*Wirklichkeit*).

More important for my purposes is that regarding the relation to foundation, Husserl intends to draw a distinction between concrete and abstract objects. An abstract object is one which is founded on another object, abstract or concrete. The concrete object is not founded on another *outside itself*. So, this is the independent object. In addition, it should be emphasised that the notion of "substance" does not appear at all. Therefore, nowhere does it appear that *unity is a real problem*, because in Husserl's view of this matter, unity is a "categorical predicate."

The "pregnant" concept of whole can be considered as founded only in its proper parts. In the same *Logical Investigation*, Husserl defines "boundary" as a dependent part of the object it is bound to. Thus, the whole that is pregnant has its own boundary *from inside*, unless it has been accepted as a dependent part of two objects, as it is in Brentano's case. This is a difficult point, because it is not clear what this interpretation would amount to without further qualifications. In certain interpretations, it seems as if the only existing pregnant whole were the universe, and that all the objects that inhabit it are dependent parts of it.

Another interpretation that links the pregnant concept of whole and the relation of foundation consists of reading the aforementioned

¹⁹ I would claim that what I referred to in the previous section on Stumpf's mereology with respect to ontological and epistemological realism in the School of Brentano can account for Husserl's acknowledgement that "content" and "object" are *so easily* interchangeable.

²⁰ See below on Ingarden and Aristotle's *Poetics*.

definition by Husserl as implying a topological relation, which is more basic than the mereological relation "be part of." The predicate here is "connection," and its more intended interpretation is "overlapping": two individuals share a common part. Moreover, further predicates of "internal part," "tangential part," "internal overlap," "tangential overlap," "boundary" and "internal proper part" appear.²¹

In these terms, then, the parts of this kind of whole are directly or indirectly interrelated by the relation of connection. And if we interpret this one as "overlapping," as minimal considerations suggest we must, then we would have to accept that all the parts of the whole share a part, but not necessarily the *same* part, and that not *all* necessarily share the same part. Note that the *link* here is established by the predicate "share." In Whitehead's terms, the minimal part shared is one point. Thus "connection," for Whitehead, means to share at least a point. To be in contact, then, means to be topologically connected.

4. Husserl and Presentations

Regarding the formal ontology of dependence treated in the third *Logical Investigation*, Barry Smith claims that "perhaps the most interesting employment of the theory however—if only in view of the almost total neglect of this fact by Husserl's myriad of modern commentators—was by Husserl himself within the discipline of phenomenology."²² Smith adds, however, in a footnote to this passage: "See Sokolowski, *Husserlian Meditations*, for a notable exception." Robert Sokolowski can be seen as one of the first contemporary phenomenologists to understand the relevance of this *Investigation* for the whole of Husserlian phenomenology. As early as 1967–68, in "The Logic of Parts and Wholes in Husserl's *Investigations*," he claimed that all Husserlian phenomenology used this logic of parts and wholes.²³

In the Spanish-speaking phenomenological world, Agustín Serrano de Haro, in his fundamental essay on this subject, claimed that "the analysis of the *V LU* fixes its abstract moments in the relative concrete of the intentional experience; and the higher abstract forms and moments of unity in the higher concrete of the phenomenological ego. His [Husserl's] 'experiments' are no more than the variation of fantasy.... Therefore, his point of theoretical reference is not the point of the physicalist, but the theorization about the necessary dependence among contents, which he develops in the *Third Investigation.*"²⁴

Therefore, given these antecedents, I shall now demonstrate how formal ontology helps us to understand the topic of the unity of consciousness, and why, in my view, it is so important to remind ourselves that formal ontology is *formal* in the first place. I shall also take the opportunity to develop a counter-argument against a thesis advanced by Serrano de Haro, who criticises Husserl's mereological account of the unity of consciousness in the fifth *Logical Investigation*.

(a) The Structure of Presentations

Husserl claims that "each concretely, complete, objectifying act has three components: its quality, its matter and its representative content." (LI/2, 740; Hua XIX/2, 620) The quality of the act is what determines the kind of act it is, "its general character," as presentative, judicative, affective, etc. The matter of the act is its most important aspect because it confers referentiality to it. And its representative content is what can be used to discriminate between perception and other kinds of presentations. As Smith puts it, it is the proxy of the object referred to by the matter of the act.

First, it should be noted that the relation of quality and matter is one of mutual dependence. As Husserl himself claims, matter without quality is unthinkable, and vice versa. The relation of mutual dependence does not, however, imply that they are fused, because the same matter can bear different qualities, and different matters can be intertwined with the same quality. It is possible to make this more explicit with the following example: "A man who frames the presentation

²¹ See Achille Varzi and Roberto Casati, *Parts and Places* (Cambridge: The MIT Press, 1999), 51ff., who maintain that the "pregnant" concept of whole must be interpreted as topological.

²² Barry Smith, "Logic and Formal Ontology," *Manuscrito*, vol. XXIII, no. 2 (October, 2000), 275–323, 298. This is a revised version of the paper that appeared in J. N. Mohanty and W. McKenna, eds., *Husserl's Phenomenology. A Textbook* (Lanham: University Press of America, 1989), 29–67.

²³ Robert Sokolowski, "The Logic of Parts and Wholes in Husserl's *Investigations*," in *Readings on Edmund Husserl's* Logical Investigations, (ed.) J. N. Mohanty (The Hague: Martinus Nijhoff, 1977), 94–111, reprinted version of the original paper, first published in *Philosophy and Phenomenological Research*, vol. 28, no. 4 (1967– 1968), 537–53; and Robert Sokolowski, *Husserlian Meditations. How Words Present Things* (Evanston: Northwestern University Press, 1974). I do not yet have an

interpretation of Smith's accusation about the neglect of these claims in the phenomenological tradition.

²⁴ Agustín Serrano de Haro Martínez, *Fenomenología Trascendental y Ontología* (Madrid: Editorial de la Universidad Complutense de Madrid, 1990), 247. My translation. Hereafter referred to as FTO. See also Pilar Fernández Beites, *"Teoría de Todos y Partes: Husserl y Zubiri," Signos Filosóficos*, vol. IX, no. 17 (January–June 2007), 63–99.

'There are intelligent beings on Mars' frames the same presentation as the man who asserts 'There are intelligent beings on Mars,' and the same as the man who asks 'Are there intelligent beings on Mars?' and the man who wishes 'If only there were intelligent beings on Mars?' and so on." (LI/1, 586-87; Hua XIX/1, 426) As is frequently pointed out in the literature, the relation obtained from quality and matter is one of interweaving, but not of fusion. "Interwoven" is the relation between colour and extension, which can be discerned in the mind, but not in reality. "Fusion" is the relation between the parts of a surface which "flow one into the other," and can thus be distinguished from a mathematical standpoint. But, what is the relation between both of them and the representative content?

This relation is more complicated to explain, because we must account for the notion of fulfilment. "Fulfilment" is the intuitive givenness of the object as it was intended. In other words, it is the act itself that combines the empty intention with intuition, or sensitivity with thought. Since Husserl uses a geometrical notion of coincidence or overlapping-which is the extensional mereological relation of sharing a part between two objects (*Deckung*) in order to account for a first combination between the intended object and the intuited object—it is possible to think of this relation of fulfilment as topological in nature. In other words, the intended object and the intuited object must share at least one part so as to make the intended object a full intuition of the same object; otherwise, they must be congruent, as two geometrical figures placed one on top of the other. What I am arguing is that the shared part between the intended object and the intuited object is what constitutes the representative content. Because it is a shared part, it is a part common to both of them; therefore it is an abstract part, or a *moment* of the synthesis of overlapping. Because the matter of the act is what lends it referentiality, and because it is intertwined with the quality of the act, we need another aspect of the act to lend it reality or effectiveness; in other words, we need the aspect of the act that can tell us if there is satisfaction of referentiality of the matter. That aspect is the moment of fulfilment in its dynamic interpretation.

Because the representative content is already a moment, does it also have to be a moment in the whole act? I do not think so. Let me stress that the quotation above belongs to the sixth *Logical Investigation*, where the topic is how knowledge is possible, and Husserl's concern is to avoid the nightmare of lacking a good criterion with which to differentiate a mere presentation from perception, or more technically, to split off perception from fantasy. Consequently, since we can have a "mere presentation," we can say that the representative content is not a moment but a piece of the whole act. Does this mean that the "representative content" is an independent part of the act? No, not if by "independent part" we understand "absolute independent part." It is here that the theoretical efficacy of different relations between parts and wholes in the third *Logical Investigation* begins to be fully employed.

Husserl considers that "to be a piece" or "to be a moment" must not be interpreted in absolute terms, because different "measures" and "distances" need to be covered by these formal relations. Remember that "pieces" (*Stücke*) are independent parts and "moments" (*Momente*) are dependent parts. In addition, they are also concrete (independent) parts and abstract (dependent) parts. But, in §13 of the third *Logical Investigation* (at the end of the first chapter), Husserl states:

Independence we have so far conceived absolutely, as a lack of dependence on all associated contents: non-independence was its contradictory opposite, a corresponding dependence on at least one such content. It is, however, important to treat both concepts relatively also, in such a way, that is, that the absolute distinction then becomes a limiting case of the relative. [The stimulus for that lies in the things themselves.] *In the sphere of mere sense-data* (not that of the things represented or apparent in such sense-data) the "moment" of visual extent, with all its parts, counts as nonindependent, but *within this extent conceived in abstracto* each of its *pieces* counts as *relatively independent* while each of its *"moments,"* e.g. the "moment" of "form" as opposed to that of position and magnitude, counts as *relatively non-independent*. (LI/2, 459, sentence in square brackets omitted in Findlay's translation; Hua, XIX/1, 263)

So, if by "independent part" we understand "relatively independent part," then the representative content is a relatively independent part. But, at the same time, it is a "relatively dependent part" when we consider it in relation to the fulfilment or synthesis of overlapping. It seems, then, that the structure of presentations, at this stage of the development of the Husserlian phenomenology of perception, could be modelled in this way:

(a) quality and matter are interwoven, hence they are moments of the whole act;

(b) representative content is a piece of the whole act, and a moment of the act of knowledge;

(c) the relation between quality and matter is essential for the act of mere presentation;

(d) the relation between quality, matter and representative content is essential for the act of knowledge;

(e) since the representative content is a *relatively independent part* of the whole act, the relation which combines it with quality and matter is mere association. Here, however, the expression "whole act" denotes "mere presentation." When "whole act" denotes "act of knowledge," the relation that combines the representative content with quality and matter becomes interwoven through the shared part of the synthesis of overlapping included in the synthesis of fulfilment.

(b) The Formal as Freed from All Material Domain

Serrano de Haro claims that Husserlian constituent ontology cannot be used to account for the life of consciousness²⁵ by virtue of the pervasiveness of the concept of combination (*Komplexion*). The concept of combination is so general that it seems to be the highest mereological category, accounting for all kinds of wholes and parts. Serrano de Haro realises that "combination" is a formal concept, meaning that it is universally applicable because it is completely freed from all material domain, just as contemporary formal logic intends to be. What he finds more controversial is that the formal concept of combination does not seem as easily applicable to Natorp's concept of *pure ego* as Husserl seems to suppose in his discussion of Natorp.

Serrano makes a strong point in his treatment of Husserl's position regarding the attention factor in experiences. According to Serrano:

The I as a new disjunctive content of the experience...cannot be added, in any case, to the intentional essence, intuitive fulfillment and attention factor. This is proved by the fact that any of the forms of connection which determine combinations become unable to conceive the connection which is expressed in the specific attention. Between the I, which guides the attention, and the special attention, there cannot be any kind of connection to claim homogeneity of the connected terms. Neither can there be a foundation, or an interweaving, which would force us to consider any variation of the I towards the direction or in the degree of attention, just like the alteration of components: such as the appearance of an I specifically different within the same genus. (FTO, 306)

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As far as I understand his statement, Serrano is introducing a notion of an I that is totally incompatible with the whole content of the Logical Investigations. Of course, I do not imply that the problem is not present in the text under scrutiny. However, let us analyse one possible answer to Serrano de Haro in the spirit of the "constituent ontology" of the third Logical Investigation. First, I do not see how the attention factor cannot be introduced as another part of the whole act, being relatively independent or absolutely dependent. Serrano de Haro's point is that, along with the attention factor, a *subjective* factor is introduced, which in later Husserlian phenomenology will be called the "subjective pole of the intentional ray" and will constitute the pure ego, which Husserl proceeded to investigate between 1901 and 1913. What would then happen if the subjective factor introduced by the attention factor were no more than a moment of variation in the whole act, and nothing else? The answer is that that subjective factor does not get to be an I at all because there would be as many egos as experiences to modify their attention factors. Therefore, at this point, I must introduce what I believe is a preliminary explanation of the unification of experiences *without any pure ego*, and if this statement can be read as valid, then I will have achieved a full appreciation of the effectiveness of formal ontology as a formal theory that accounts for the life of consciousness.

I have claimed that the structure of presentations is articulated as Husserl himself indicated, with different moments and pieces connected by diverse relations of combination. I must complete the account by claiming that in the situation of fulfillment, we have not only what I have described above, but also the horizons of the perceptive situation, which pave the way for the interconnection between presentations and experiences. When I achieve the intuition given by the object in its fullness as intended, other sides of the object not given in intuition are intended again (internal horizon), while in the foreground (technically, the "external horizon") appear other objects not given by perception at all. In this referentiality of experiences to other experiences, they are linked to one another by relations of foundation. In other words, I claim that consciousness in Logical Investigations is an example of a whole in a "pregnant sense," a kind of whole in which all the parts are essential. This implies mereological essentialism, which I will not discuss here, yet I suppose that Serrano de Haro would agree with me on this point and, further, that it is because it implies mereological essentialism that this view should be rejected. But I do not find so unacceptable this conception of subjectivity as a "domain of experiences" without any kind of link except relations of foundation between them. No substance, no pure ego. I can make this last statement be-

²⁵ See Serrano de Haro, "Origen de las dificultades señaladas en la idea mereológica de complexión," in FTO, 296–309.

cause I limit myself to regarding that formal ontology as the objective counterpart of a scientific theory, and I do not interpret its formal concepts as connected with *any material domain*.

5. A Tribute to Roman Ingarden

I have presented Husserlian constituent formal ontology from the third *Logical Investigation* and I have applied it to the very Husserlian consideration of consciousness and its parts and moments in the fifth *Logical Investigation*. We can see that abstract and concrete determinations are formal, which allows us to deal with both of them in the life-world. In this part of my paper, I want to move forward and apply these concepts to a kind of object which, by definition, is not concrete. If my working hypothesis is valid, then I will be able to validate the main statement of this presentation: formal ontology is an operative tool in phenomenology.

I believe that Roman Ingarden is better known than Carl Stumpf, so I will not say much about him. Let me just state that both of them can be considered the main opponents to the transcendental turn performed by Husserl in 1913. As Jeff Mitscherling says: "One of the most devoted of Husserl's students, Ingarden was also one of the earliest opponents of his teacher's transcendental turn, and *The Literary Work of Art*—written during the same period as was Husserl's Formal and Transcendental Logic (which was published in 1929)—is basically the development of what we might call a 'realistic' stance in opposition to Husserl's theory."²⁶ In turn, Amie Thomasson emphasises the relevance and importance of Ingarden's philosophy not only for aesthetics, but also for an ontology of the objects of daily worlds in general.²⁷

I have entitled this last part of my contribution "A Tribute to Roman Ingarden" because it is based on his spirit, yet not so much on his "letter." However, part of his "letter," which has inspired my work, can be found in Ingarden's two papers, "A Marginal Commentary on *Aristotle's Poetics*" and "A Marginal Commentary on Aristotle's Poetics. Part *II.*"²⁸ Based on my reading and interpretation of Aristotle's *Poetics*²⁹, I will suggest a mereological reading of the main elements that together comprise a whole, in an Aristotelian sense, in the *Poetics*. Of course, as Roman Ingarden himself claimed, "My aim here is not historical inquiry. It is not my purpose to evaluate Aristotle in the light of Greek thought or to consider his role in its development, leaving him all the while in a world distant and apart from us."³⁰ As is well known, in his *Poetics*, Aristotle identifies six qualitative parts of the tragic poem, without which we would not have that whole which we identify as a "dramatic structure."³¹

There are several structuring models which result in the different dramatic structures available in dramatic texts throughout theater history. The first attempt to stabilise and fix these structuring models appears in Aristotle's *Poetics*. I will present seven problems, which can be found in the *Poetics*, and will then demonstrate how Husserlian constituent ontology can solve many of them, in particular, the nature of dramatic structure and the mode of combination:

(a) There is a confusion of the *structure* of the dramatic work with the connections among its *qualitative parts*;³²

(b) The type of connective relation between the *qualitative parts* of the tragedy;

(c) The poet is he who perceives "structural analogies";

²⁶ Jeff Mitscherling, "Roman Ingarden's 'The Literary Work of Art': Exposition and Analyses," *Philosophy and Phenomenological Research*, vol. 45, no. 3 (March 1985), 351–81, here 352. Because Mitscherling applies to concrete works of art what Ingarden could not do in his seminal work, I consider this to be one of the most relevant papers on this topic.

²⁷ See Amie Thomasson, "Roman Ingarden," *The Stanford Encyclopedia of Philosophy* (Winter 2008 Edition), (ed.) Edward N. Zalta, at [http://plato.stanford.edu/archives/win2008/entries/ingarden/].

²⁸ See Roman Ingarden, "A Marginal Commentary on *Aristotle's Poetics*," *The Journal of Aesthetics and Art Criticism*, vol. 20, no. 2 (Winter 1961), 163–73, and "A Marginal Commentary on *Aristotle's Poetics*. Part II," *The Journal of Aesthetics and Art Criticism*, vol. 20, no. 3 (Spring 1963), 273–85.

²⁹ Aristotle, *The Poetics of Aristotle*, (tr.) Stephen Halliwell (North Wales: Duckworth, 1987). Hereafter referred to as PA.

³⁰ Ingarden, "A Marginal Commentary of *Aristotle's Poetics*," 1961, 163.

³¹ This research on dramatic structures has been possible thanks to the financial support granted by Instituto Nacional de Teatro, obtained through the Project: *Dramatic Structures: Models, Topology and Ideology,* 2009–2010, and of the National Grants for Research Groups awarded by the Fondo Nacional de las Artes, 2009–2010, both in Buenos Aires, Argentina.

³² Aristotle uses a metaphysic matter-form explanation scheme, which can be applied to all things and events in the sublunar and celestial world. The so-called confusion is "ours," to the extent that we understand that the constraint of genre is what Aristotle means by *structure*, which can be classified as the *formal* part of the *dramatic work* issue in his philosophy. But the consideration of the connection between the qualitative parts is what, in literary and dramatic tradition, has been labelled as *structure*. This consideration could be called *formal semantic structure*, and thus Eduardo Sinnot, the Spanish translator, refers to *qualitative parts*. See Aristotle's *Poética* (Buenos Aires: Colihue, 2006), 39.

(d) The definition of *mimesis* and the mimesis object ("those who act");

(e) The assumption of the essential connection between human action, ethics and rhetoric;

(f) The dispute between dramatic and epic poetry, concerning the evaluation of the type of poetry that can best develop the objective of "instilling fear and compassion" in the audience, in order to bring about *catharsis*, as a moral and cognitive purge;

(g) The previous point suggests the efficacy Aristotle attributed to poetry in general, which introduces the problem of the relation between dramatic poetry and society or audience.

If these seven points are taken into account, it is possible to make out a conceptual map of the different deflections which have focussed on the question of dramatic structure throughout the history of theatre and narration. I am not including all of the problems within these points or within Aristotle's *Poetics*; I assert, instead, that this list must be considered according to my purpose and my above-mentioned theoretical frame. Furthermore, I do not consider all of these points here, and I would like my following statements to be interpreted as *working hypotheses*.

The first step is to inquire about the ontological nature of the dramatic text in order to specify its structure. Particularly, what type of object is a textual structure? At this point, my answer is that we should apply Husserlian formal ontology, because it provides a good theory on abstract objects as ontologically dependent on concrete objects. I mentioned earlier that the notion of ontological dependence implies that an object *a* only exists if an object *b* exists. In this case, is object *a* or object *b* the structure? In other words, is there structure beyond the existence of texts, or is there structure only because there are texts? It is worth pointing out that the question on the ontological nature of structures has been set aside by most structuralist semioticians, with some exceptions, such as Umberto Eco in The Absent Structure. My main working hypothesis, then, states that structures are abstract objects that depend upon those concrete objects of which material texts consist. Since their appearance depends upon a human subject or human subjects of a particular culture. I understand these to be *arte*facts.33

This first problem is also related to the questions of unity, totality and plurality of narrative structure. What conditions must an object assemble so as to be able to state that it holds unity? Is that unity total and complete? Is unity (of action, of space) a necessary and sufficient condition for a complete or total object to be? Note that this is a very complex issue, whose questions different schools have tried to answer *negatively*. My particular relevant working hypothesis here states that, for the Baroque and the Renaissance (Calderón de la Barca, William Shakespeare), totality *doesn't necessarily imply* unity, as there may be plural totalities without unity of action or space. If the problem of totality covers the problem of *limit* (Which scene can be left out? Which scene is missing? Is every scene necessary? Is every action necessary? Can none of them be left out? Isn't one of them missing? Which is the end?), then topology completes the mereological analysis.

Another question worth considering concerns the *access* to these structures. Thus, Aristotle says in his *Poetics:* "By far the most important thing is facility with metaphor. This alone is a sign of natural ability, and something one can never learn from another: for the successful use of metaphor entails the perception of similarities." (1459a5–8; PA, 57). My working hypothesis states that if it is possible to perceive a formal property of the objects, such as *resemblance*, then it becomes a subject for the theory of categorical perception or the theory of abstract objects.³⁴ Likewise, the writer perceives the structure from the relation between concepts and percepts³⁵, and that is what the phrase "the image asks for/rules structure (not the writer)" means to us.

Another point I want to make concerns the necessary literary or extra-scenic nature of the written dramatic production. This is another way of approaching the problem of typology of structures: Is the

³³ It can be said that my main antecedent is Amie Thomasson's *Fiction and Meta-physics* (Cambridge: Cambridge University Press, 1999); see, for example, page xi: "In the view I propose here, fictional characters are abstract artifacts—relevantly similar to entities as ordinary as theories, laws, governments, and *literary works*,

and tethered to the everyday world around us by dependencies on books, readers, and authors." For the artefactual theory of art, see Risto Hilpinen, "Artifact," *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, (ed.) Edward N. Zalta, at [http://plato.stanford.edu/archives /fall2008/entries/artifact/]. A discussion of this ontological point of view was applied to the object "staging" by Horacio Banega and Federico Penelas at a roundtable titled *Aproximaciones ontológico-semánticas al hecho teatral* ("Ontological-semantic Approaches to the Theatrical Event"), "*El objeto puesta-en-escena y sus partes propias: un análisis exploratorio,*" held at the *XIII Congreso Nacional de Filosofía*, Rosario, Argentina, 22–25 November 2005.

³⁴ See Edmund Husserl, *Logische Untersuchungen. Zweiter Band. Zweiter Teil. Untersuchungen zur Phänomenologie und Theorie der Erkenntniss*, (ed.) Ursula Panzer (The Hague: Martinus Nijhoff, 1984).

³⁵ We regard "concepts" as the linguistic categorisation that applies to sensorial and sensitive material (and we call this material "percepts").

structure of a novel different from a dramatic structure? Is a dramatic piece different from a poem? Is the structure of a dramatic piece different from that of a musical piece? Does the hypertext, as a contemporary phenomenon, have any positive relation to the dramatic structure? I believe Aristotle exhibited some doubt about the primacy of tragic poetry over epic, regarding the objectives ascribed to the consumption of narrations or art, *as if he were ahead of the appearance of the novel and the cinema.* This point forces me to assert the necessary literary or extra-scenic nature of written dramatic production.

I allow myself to doubt the necessary and eternal existence of theatre, *as we know it.* Therefore, this working hypothesis states that the dramatic text is a literary text and, apart from novels and cinema, *the multiple notions of hypertext, which have been fuelled by the boom of the Internet, will allow the expansion of the concepts of dramatic text and scenic practice.*³⁶ Thus, in this way, I believe Husserlian formal ontology can help me to design a theory of the objects of the life-world in a direct manner.

6. Conclusions

I intended to show that formal ontology is a formal theory that pervades the work carried out by Stumpf and Husserl, and that it can be applied to domains pioneered by Ingarden. What can be inferred about the relation between this formal theory and phenomenology itself?

In the last few years, certain problematic statements associated with that relation have appeared. In his latest published book, *The Philosophy of Edmund Husserl. A Historical Development*, J. N. Mohanty, in a section quite related to what I analysed above in fifth *Logical Investigation*, claims that "in 1901, Husserl had an objective concept of the I. The I is an empirical thing like other things. Like other things, it

is a whole consisting of parts. His application of the whole-part category to the I is regarded by many as an *unexpressed presupposition* of this theory."³⁷ Mohanty does not say anything else about this "unexpressed presupposition" of Husserl's theory.

Daniel Schmicking expresses the view closest to the one I have intended to establish here. As he explains:

Contrary to official assertions, in Husserl's phenomenology, which is Dennett's main target, there is, for instance, a theory of formal ontology presupposed by Husserl's descriptions and analyses, which certainly is no case of spontaneous or provisional theorizing.... I propose to lump these steps together into one tool: *the investigation of invariant structures and their relationships*. This tool is in turn dependent on another tool, formal ontology, which is a pure theoretic component of phenomenology. The importance of part-whole relations and of formal categories and dependencies in general has been widely underrated or neglected in phenomenology (for instance, Husserl's texts teem with "foundation" [Fundierung] and "[real] moment" [*das (reelle) Moment*], the latter sometimes mistakenly rendered as "instant").³⁸

If it were acknowledged that formal ontology determines phenomenology, then it would be possible to give a more precise account of the mathematical structures underlying the formal theory and of the relationship with the morphological essences described by phenomenology. If it is acknowledged that formal ontology is the objective counterpart of the theory of objects of the life-world, and that *Erlebnis* belongs as such to that same world, then it will be possible to assess the adequacy of phenomenological descriptions for those same objects. But, much more problematic, what would happen if we were to get to the limit of our learned phenomenology and begin to think that this encounter (*Erfahrung*) is already structured by part-whole relations? As analytical-minded philosophers tell us, since the Big Divide came to being, it could be that there is nothing similar to a prepredicative encounter. I do not believe that this statement implies a

³⁶ The definition of dramatic work as an "embryonic novel," and its consequent of bearing an essential relation with narrative, is Ricardo Monti's, who basically draws on certain Aristotelian and Hegelian considerations; see Monti, "*El teatro, un espacio literario,*" *Espacio de Crítica e Investigación Teatral*, vol. 3, no. 3 (April 1989). Mauricio Kartun redefines it as "bonsai novel." Regarding the possibility of dramatic production being connected with poetry, thus challenging the previous definition, see Luis Cano, [http://www.autores.org.ar/lcano/lcano/ldentikit/ obras.htm] and Alejandro Tantanian, [http://www.autores.org.ar/atantanian/ obras/obras.htm]. For hypertext and its relation with Aristotle's *Poetics*, see Pamela Jennings, "Narrative Structures for New Media: Towards a New Definition," *Leonardo*, vol. 29, no. 5 (1996), 345–50.

³⁷ J. N. Mohanty, *The Philosophy of Edmund Husserl. A Historical Development* (New Haven: Yale University Press, 2008), 150 (italics mine). In a footnote, Mohanty adds: "Cramer made these points in his Göttingen lectures of 1993 (author's notes)."

³⁸ Daniel Schmicking, "A Toolbox of Phenomenological Methods," in *Handbook of Phenomenology and Cognitive Science*, (ed.) S. Gallagher and D. Schmicking (Dordrecht: Springer, 2010), 35–55, here 38 and 46.

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huge modification of Husserlian phenomenology, but the debate has not yet begun. Or has it?

horaciobanega@gmail.com