



## The Ontology of Propositions in Husserl's *Prolegomena*

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**Abstract** The aim of the present paper is to reformulate the ontology of propositions which Husserl proposes in his *Prolegomena zur reinen Logik* (1900). In this book Husserl claims that propositions, with which what he calls “pure logic” has to do, are properties (“species”) of acts of, say, judging. Furthermore, he regards properties as circumscribing the range of all their possible instances. Given these ideas, it becomes clear how Husserl’s discussion on the nature of logic depends on his ontology of proposition. In the present paper, the following two points are discussed for that claim. First, the whole structure of his negative argument against psychologism can be correctly understood only if Husserl’s ontology of proposition is taken into consideration. This explains the reason why Husserl does not content himself with the conception of logic as an *a priori* normative science to refute psychologism. Second, his positive view on logical laws would also be made more intelligible by that theory. His theory provides what is needed for the refutation of psychologism without abandoning a largely Aristotelian view on logic, which Husserl regards as indispensable, but which would be very difficult to save if one adopts only the *a priori* normative conception.

### Introduction

Husserl’s *Prolegomena zur reinen Logik*, published in the last year of the 19th century as the first volume of his *Logische Untersuchungen* (Husserl [1900/01]),<sup>1</sup> is widely accepted as one of the most influential works in the 20th century philosophy. The arguments proposed in the book against “psy-

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<sup>1</sup> Unless otherwise noted, all the references in the present paper are to the *Prolegomena*.

chologism” (or “naturalism,” as we shall call it later) in logic played an important role in the fall of psychologism and the rise of objectivism in logic and semantics (cf. Kusch [1995], Wolenski [2006]).

The aim of the present paper is to prepare for a reassessment of the *Prolegomena* by considering the theoretical framework in which Husserl’s discussions on logic are situated. All his arguments, both against psychologism and for his own view on logic, are closely related to his peculiar *ontology* of propositions, without which we would fail to see the overall structure of the book. Unless such a full picture is given, it seems, we might easily under- or overestimate Husserl’s position. In the present paper, therefore, I do not evaluate Husserl’s criticism of psychologism. It is also beyond my aim to argue for (or against) Husserl’s own view on logic. Instead, I shall focus only on what connects his negative arguments and positive view.

My discussion runs as follows:

**Section 1:** I will formulate Husserl’s three conceptions of logic introduced in the *Prolegomena*: a) psychological, b) *a priori* normative and c) *a priori* descriptive. This makes it possible to summarize Husserl’s argument against psychologism in the following way: the psychological conception of logic presupposes the *a priori* normative one, and thus the former cannot exhaust the whole of logic, i.e., psychologism fails. The *a priori* normative conception, in turn, cannot exhaust the whole logic either. For it depends on the *a priori* descriptive conception of logic, according to which there are no normative expressions such as “ought (not)” and “(in)correct” in the canonical expressions of logical laws.

**Section 2:** From the last conception, we obtain Husserl’s positive view that logic is primarily a descriptive science concerning the structure of propositions. In this section, I will introduce Husserl’s ontology of propositions adopted in the *Prolegomena*. After a brief consideration of the notion of proposition in general, I will give an outline of Husserl’s species theory of propositions: propositions are properties (in his own words: “species”) of certain kinds of intentional states such as judging.

**Section 3:** I will show how the three conceptions of logic relate to each other in the ontological framework just introduced, focusing especially on the ontological status of logical laws. While Husserl considers them to be descriptive laws concerning the structure of propositions, he has to give an explanation why the two other conceptions of logic are feasible in their own right respectively. In other words, Husserl has to explain why descriptive logical laws function as *a priori* norms of our thinking and thus enable an empirical-psychological investigation on correct and incorrect human thinking. Husserl’s core idea is that, because propositions are properties of inten-

tional states, laws governing them are related to acts of thinking which instantiate them; logical laws as *a priori* norms are grounded in descriptive laws of propositions by means of instantiation.

**A Concluding Remark:** Finally I shall provide a short remark related to the discussion. It concerns the reason why Husserl adopts a rather complicated strategy in his discussion on psychologism. If only the rejection of psychologism is at issue, he need not ground *a priori* norms in descriptive laws; it would be sufficient to endorse *a priori* normative logical laws. There must be a reason for Husserl's move. My claim is that he tries to reconcile the *a priori* normative conception with an Aristotelian conception of logic, according to which logical laws such as the law of non-contradiction belong to the inquiry into being qua being. The uniqueness of Husserl's ontology of propositions lies herein. He can combine descriptive and normative approach to logic by adopting species theory within a basically Aristotelian conception of logic.

### 1. Three Conceptions of Logic Reformulated

In the first two chapters of the *Prolegomena*, Husserl introduces the following three conceptions of logic:

- (1) The conception of logic as a technique of human thinking.
- (2) The conception of logic as a normative science of reason.
- (3) The conception of logic as a theoretical (or descriptive) science of the formal conditions of truth.

In this section, I reformulate those conceptions by drawing their implications on the nature of logical laws respectively. Such a reformulation could make it easier to see the shared structure of Husserl's various arguments against psychologism.

#### 1.1. The Psychological Conception

According to the first conception, the laws of logic are technical methods for us humans to get cognitions [*Erkenntnisse*], i.e., pieces of knowledge, and to avoid incorrect pseudo-cognitions or fallacies. Since such methods are senseless if we humans cannot adopt them effectively, their nature depends on the capacities of human beings, which are determined, at least partially, by contingent matters of fact (cf. § 42). Thus the laws of logic as methods are

to be discovered by the psychology of human cognitions and fallacies. We can formulate that psychological conception of logic as follows:

(PC) Logic is a study of certain laws discovered by empirical psychology.

The important point, often neglected by commentators, is that in the *Prolegomena* Husserl never refuses PC *as such* (cf. §§ 3, 41; see also Bernet [2004: 50–4]). What Husserl criticizes under the name of “psychologism” is not PC itself but the view that it exhausts the idea of logic. According to such a view, the whole logic would be reduced to a branch of psychology. For Husserl, however, psychologism involves something of an excess of authority (*metabasis eis allo genos*) because it simply ignores logics under the two other correct conceptions, rather than explicating them away. To avoid confusion between the psychological conception and “psychologism,” hereafter we shall call the latter “naturalism” about logic.<sup>1</sup>

### 1.2. The A Priori Normative Conception

The second conception of logic plays an important role in Husserl’s negative arguments concerning the nature of logic: he argues that naturalism about logic is circular or self-refuting, because it already relies on the logical norms as the conditions of possibility of naturalistic explanation. According to Husserl, to be correct, any explanation already needs to satisfy normative constraints, for instance, the one according to which one should avoid contradiction.<sup>2</sup>

As already noted, however, it is not our present aim to see whether and to what extent Husserl’s normativity-argument against naturalism is convin-

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<sup>1</sup> As Hanna argues, psychologism about logic can be boiled down to naturalism, i.e., to “the thesis that logic is logically strongly supervenient on the natural facts” [2006: 13]. Then Husserl’s anti-psychological position would be anti-naturalism about logic. Furthermore, the term “naturalism” is used as a synonym for “psychologism” in Husserl’s time: the young Heidegger used the term in his dissertation on the theories of judgement in psychologism (cf. Picardi [1997: 162]).

<sup>2</sup> “[*Empirismus*] hebt die Möglichkeit einer vernünftigen Rechtfertigung der mittelbaren Erkenntnis auf, und damit hebt er seine eigene Möglichkeit auf” (Appendix to §§ 25–6). Nothing essential is lost if we here substitute “*Naturalismus*” for “*Empirismus*.”

cing.<sup>1</sup> For now, on the basis of the argument summarized above, I shall reformulate the second conception as the *a priori* normative conception of logic:

(NC) Logic is a study of the *a priori* normative laws for all rational beings.

Being conditions of possibility of explanation, the *a priori* normative logical laws cannot be explained by any natural science, the very possibility of which is warranted by the laws in question. And, since it is logically and perhaps metaphysically possible that human beings have different biological or physical features but the same faculty of reasoning, the normative laws of logic are valid not only for human beings, but also for rational beings *in general*.<sup>2</sup> It is because of such situations that the normative laws in question are *a priori*.

The introduction of NC, Husserl argues, helps us making sense of the logic as understood by PC. Such psychological (not psychologistic!) logic is defined as a study of methods for human beings to follow certain *a priori* normative laws.<sup>3</sup>

Thus psychological logic is dependent only partially on psychology and therefore logic *as such* cannot be reduced to psychology (or to any other natural science).

### 1.3. The A Priori Descriptive Conception

Although NC seems to be sufficient for the argument against naturalism about logic, Husserl is not content with it: for him the idea of logic is not exhausted by PC+NC. In the *Prolegomena* Husserl repeatedly claims that

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<sup>1</sup> On Husserl's argument for the *a priori* normativity of the laws of logic, see Hanna [2008]. It must be noted, however, that, though he provides an elucidating exposition of Husserl's argument in question, he himself explicitly opposes Husserl as regards the nature of logic: He [2006: 206–209] criticizes Husserl's view that logical laws as such are not *a priori* normative but *a priori descriptive*, claiming that normativity is in the very nature of logic. For Husserl's view on the nature of logic, see below.

<sup>2</sup> In this paper I ignore the problem whether even God would have to follow those normative logical laws to be rational, *if* He exists.

<sup>3</sup> Since some *a priori* normative laws are impossible for human beings to follow (e.g. a rule for extremely long and complicated inferences), only a (small) part of normative laws are relevant to psychological logic (cf. §§ 15, 41).

logic as an *a priori* normative science is dependent on logic as an *a priori descriptive* science (see, for instance, § 16).<sup>1</sup> Since PC depends on NC, logic as a descriptive science also lies at the basis of psychological logic. According to this conception, the appropriate expressions of logical laws *as such* can contain no normative terms such as “ought (not)” and “(in)correct.” The genuine objects of logic are propositions [*Sätze*], and the laws of logic are about formal relations among them.<sup>2</sup> *A priori* normative and psychological logical laws are somehow derived from the descriptive laws concerning propositions respectively. This is an answer given by Husserl to the question why naturalism about logic is not a tenable position.

Since, again, it is not the aim of the present paper to evaluate Husserl’s argument against naturalism, I shall concentrate on the following *a priori* theoretical conception taken as Husserl’s positive and fundamental view on logic:

(TC) Logic is an *a priori* descriptive science on formal relations among propositions.

Then, the problem would be: what does Husserl mean by “propositions” and “formal relations” among them?

## 2. Husserl’s Ontology of Propositions

In this section I shall introduce the notion of proposition and then examine Husserl’s view on its ontological status. This will help us to understand how and why Husserl comes to think that TC lies at the fundament of the two other conceptions.

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<sup>1</sup> Husserl himself uses the phrase “theoretical sciences/laws” to mean sciences/laws that are not normative. Since such a terminology makes it untidy to use the word “theory” for a normative science, in the present paper I shall use “descriptive” instead of “theoretical.”

<sup>2</sup> This view is made explicit in § 29 of the first *Untersuchung*.

## 2.1. What Are Propositions? A Brief Characterization

The notion of proposition adopted by Husserl in *Prolegomena* is not his own invention.<sup>1</sup> Similar ideas can be found in philosophical works of the late 19th and early 20th century. In this paper, I shall focus on the following focal characters shared by those ideas:

- Propositions are meanings of declarative sentences.
- Propositions are what are true or false in the primal sense.
- Propositions are contents of certain mental attitudes.<sup>2</sup>

To make sense of those characters, let us consider the following inference:

1. Taro believes that there are Martians.
2. Hanako fears that there are Martians.
3. That there are Martians is false.
4. Therefore, what is believed by Taro and feared by Hanako is false.

In order to fill a gap lying between steps 3 and 4 of this seemingly valid inference, we must add a further premise. Namely:

- 3.5. What is believed by Taro = what is feared by Hanako = that there are Martians.

According to 3.5, there must be one and the same entity which stands in a relation both to Taro's believing and Hanako's fearing and which bears the property of being false. Since such an entity must explain the epistemic status of Taro and Hanako, it is fairly reasonable to assume that the entity in question is that meaning of the English sentence "There are Martians" which can be expressed also in, say, the Japanese sentence "*Kasei-jin ga iru.*" It is such an entity that Husserl calls "proposition."

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<sup>1</sup> Husserl introduces propositions as late as in the 1896 lecture on logic, under the influence of Bernard Bolzano. See Husserl [2001a: 44–53].

<sup>2</sup> In the present paper, following Bolzano and Husserl and others, I assume that propositions are *contents* of attitudes rather than objects as, for instance, Frege thinks. On this matter, see Künne [2003: 258–263].

## 2.2. Propositions as Species

Then, what is the ontological status of propositions? Since propositions are meanings of sentences and shared contents of attitudes, they must be *repeatable*. This suggests that propositions are abstract, “ideal” entities rather than “real” or concrete ones such as our mental attitudes, but it seems to lead to a difficulty. If propositions are ideal entities, how can we stand in a relation to them when, say, we believe that the earth moves? How can ideal and real entities be in a relation, given that ideal entities are causally inefficient?

To solve that problem, Husserl considers propositions (and sub-propositional meanings) to be properties (in his terminology, “species”) instantiated in our mental attitudes (cf. §§ 29, 38, 51, 62).<sup>1</sup> To take the above example again, according to this conception, what is believed by Taro is identical to what is feared by Hanako, because Taro’s believing and Hanako’s fearing share one and the same mental property, just as two red balls share the property of being red. Let us call this the “species theory” of propositions.

The strength of the species theory lies not only in that it enables us understand how we can relate to propositions, but also in that it can be consistent with the physicalist view of the mental.<sup>2</sup> If we can reduce mental properties, including propositions, to physical properties, the species theory would be a possible ontological explanation of propositions for the physicalist, even though Husserl himself is not interested in such a direction at all.<sup>3</sup>

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<sup>1</sup> As far as I can determine, Husserl adopts this view as late as April of 1899. See Husserl [2009: 134, 138].

<sup>2</sup> This direction is suggested by Smith [1987].

<sup>3</sup> Furthermore, it is even disputable whether Husserl considers propositions to be *mental* properties. Although Husserl claims that propositions are instantiated in acts or *Erlebnisse*, his *phenomenological* conception of acts is not that they are mental. In the second volume of *Logische Untersuchungen*, phenomenology is characterized as a metaphysically neutral endeavor, which describes *Erlebnisse* without relating them to objects transcending them (see § 7 of the Introduction to the second volume). Such a claim is made not only about intentional objects of acts, but also about objects which might bear acts as their accidents. It is only if *Erlebnisse* are regarded as accidents of transcendent objects (empirical ego, soul, etc.) that they may be called mental. In this sense it is not phenomenologically descriptive to identify phenomenology and descriptive *psychology* (cf. Benoist [1997: 219]). Thus one must keep in mind that mentalistic the understanding of the species theory of proposition



### 3. The ontological Status of the Laws of Logic

According to the normative conception, the laws of logic are *a priori* norms, which can be expressed, for instance, as “it is valid to infer that P&Q from the premise that P and the premise that Q.” If an inference we make does not obey any of such norms, then it is an invalid inference (or a pseudo-inference). As already mentioned, however, Husserl claims that there must be *a priori* descriptive laws as the fundamentals of logical norms. For him, logic is, basically, an *a priori* descriptive science of the formal relations among propositions. Given Husserl’s ontology of propositions, we can now see how and why Husserl adopts a rather complicated way to argue against naturalism.

#### 3.1. The Laws of Logic as Propositions About Propositions

According to Husserl, descriptive logical laws are propositions about propositions.<sup>12</sup> The canonical expressions for the laws of logic are not sentences about inference rules.

For instance, the sentence about the introduction of conjunction

(IC) It is valid to infer that P&Q from the premise that P and the premise that Q

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might miss the point of Husserl, even though it is inspired by the theory and interesting as an independent philosophical theory.

<sup>1</sup>In § 25 Husserl claims that the principle of non-contradiction is a principle about propositions, and, in the 1902/03 lecture (Husserl [2001b: 24–5], he regards the same principle itself as a proposition. See also Bernet [2004: 41].

<sup>2</sup>Then one might say that, if propositions as mental properties are reduced to physical properties, then logical laws would also be physical properties and thus logic as such is finally reduced to an empirical science on the physical. In my view, however, it is possibly not a correct conjecture. It is true that in that case logical laws are reduced to physical properties, since they are propositions about propositions and all propositions are mental properties. But this does not mean that relations among propositions described in the laws of logic—in the present case, certain relations among physical properties—are reduced to physical relations. There might be relations among physical properties which cannot be discovered by any empirical science. If it is true, the reduction in question yields a physicalist ontology of mental properties, but not full-blooded physicalism, since there is room for non-physical relations among physical properties.

is not a canonical expression of a logical law as such. If one is to state the underlying law correctly, Husserl thinks, one must use the following sentence:

(IC-L) The pair formed by the proposition that P and the proposition that Q grounds the proposition that P&Q.

The verb “to ground” [*begründen*] here means the situation among the three propositions: the proposition that P and the proposition that Q are true and the pair formed by them constitutes the reason for the truth of the proposition that P&Q. According to Husserl, it is such a relation of grounding that the laws of logic describe in the primal sense.<sup>1</sup>

Then, the question is: How are *a priori* normative logical laws (rules for inference) and descriptive logical laws (propositions about propositions) related to each other? How does the latter function as the fundament of the former?

### 3.2. *The Ontological Foundation of Correct Inferences*

Being propositions about propositions, descriptive logical laws can also be instantiated in our attitudes as their contents. So it might be tempting to interpret Husserl’s position about the ontological foundation of normative laws like this:

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<sup>1</sup> Then it would be the case that the validity of inferences from false premises, with which formal logic has to deal, is *not* explained by the notion of grounding alone. As far as I can see, nowhere in the *Prolegomena* does Husserl provide a full explanation on this matter. Such a situation seems to stem from Husserl’s view that logic as a theory of science has to do primarily with truth, since a science is a system of truths. It seems possible, however, to give an explanation covering valid inferences from false premises roughly like this: an inference from false premises is valid  $\leftrightarrow$  *if its premises and conclusion are all true*, there is a certain relation of grounding between the premises and the conclusion.

It must also be pointed out that the relation of grounding does not hold in such a way that the proposition P&Q grounds P, because it does not explain the reason for P’s being true. Then, how does Husserl explain the validity of inferences according to, say, the rule for the elimination of conjunction? Unfortunately, Husserl does not seem to give any account of that matter neither. In this paper, however, I do not go into possible treatment of it within the Husserlian framework. My understanding of Husserl’s notion of grounding owes much to Centrone [2010: 104–108].

(OFN-1) A descriptive law of the logic functions as the fundament of the corresponding rule for a certain type of inference, because it is instantiated in possible inferences of that type.

If this is correct, it is valid to infer that P&Q from the premise that P and the premise that Q, because the corresponding descriptive law is instantiated in the inference made.

Such an interpretation, however, cannot be correct, because it neglects Husserl's distinction between two kinds of inference. If (OFD-1) is correct, we cannot follow an inference rule unless we have the corresponding descriptive law as a content of our act of inferring. But, we do make valid inference without having the corresponding descriptive law: when we infer that Tokyo is a crowded but nice city from the premise that Tokyo is a crowded city and the premise that Tokyo is a nice city, should our inference have the proposition expressed in (IC-L)? Furthermore, if it were true, the inference in question would in fact proceed from three premises (P, Q and (IC-L)) to P&Q by following another rule called "Modus Ponens." Then, the inference must also obey the descriptive law corresponding to Modus Ponens, and then the inference would in fact be more complicated...; thus (OFN-1) leads us to infinite regress in the explication of our inference and makes the fact about our valid inference totally unintelligible.<sup>1</sup>

Husserl is well aware of such a difficulty and his proposal in order to avoid this is to distinguish "inference according to [*nach*] premise" from "inference from [*aus*] premise" (cf. § 19 and Hanna [2008: 39–40]). According to Husserl, an infinite regress occurs only if we wrongly try to explicate an inference *according* to a premise as an inference *from* the premise, i.e., as an inference that contains the premise in itself. In other words, the mistake is to regard an inference following a rule as one which has the corresponding descriptive law as a part of its content.

Thus, in Husserl's view, the corresponding law of logic is not instantiated in cases of valid inference following a rule. Rather, the law relates to these cases in a mediated way. For instance, an inference being valid according to (IC) is analyzed in the following way:

(V-IC) An inference is valid according to (IC)  $\leftrightarrow$  [1] (IC-L) is true & [2] acts of thinking which constitute the inference instantiate propositions of the form P, Q, and P&Q respectively & [3] in the course

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<sup>1</sup> This infinite regress is known as Lewis Carroll's paradox. Further on this matter, see Hanna [2006: 54–9].

of inference the act of thinking that instantiates the proposition of the form P&Q is performed on the basis of the acts of thinking that instantiate the propositions of the form P and Q respectively.

Then, we can generalize this analysis so as to obtain the following principle:

(V) An inference *I* is valid according to an inference rule *R* ↔ [1] There is a true descriptive law *L* corresponding to *R* & [2] acts of thinking which constitute *I* instantiate all the propositions described in *L* & [3] in the course of *I* the acts of thinking stand in the relation of reasoning which corresponds to the grounding relation described in *L*.

In order to come to the correct view on the ontological foundation of *a priori* normative laws according to Husserl, we must consider the following ontological principle about properties (species) in general (cf. § 39):

(PP) The range of possible *F*s is circumscribed by the existence<sup>1</sup> of the property of being *F*.

From (PP) Husserl infers that the modal fact that there could be a golden mountain is reduced to the existence of the composite property of being a golden mountain.

If (PP) is applied to the case of propositions which Husserl considers to be properties, we obtain:

(PP-P) The range of possible acts of thinking that *P* is circumscribed by the existence of the proposition that *P*.

Likewise, the possible existence of an act of thinking that *P* is reduced to the existence of the proposition that *P*.

Now we can reformulate Husserl's view on the ontological foundation of *a priori* normative laws. As (V) shows, in the Husserlian framework, the validity of *a priori* normative logical laws are explained in terms of the truth of corresponding *a priori* descriptive laws and acts of inference. But, very

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<sup>1</sup> Husserl calls the mode of existence of species "validity" [*Geltung*] and this shows how he is influenced by Lotze's interpretation of the Platonic "world of ideas," according to which Platonic ideas "determine the limits of all possible experience" (Moran [2005: 88]). In the present paper, however, I ignore the distinction between existence and validity for the sake of simplicity.

likely there are massive amounts of complicated rules, which, as a matter of fact, nobody in this world follows. So it seems that the explanation must rely on the *possible* act of inference, but there is no need for Husserl to commit to them. The possible acts needed here are reducible to the existence of propositions as properties in the following way:

The descriptive laws of logic are propositions about the formal relations of grounding among propositions. So the schematic expressions occurring in (IC-L) such as “P&Q” are general terms for all the propositions of, say, the form P&Q. And all the possible acts of thinking of the form P&Q are reduced to the proposition of the form P&Q. *Mutatis mutandis* the same holds also about other schematic expressions in (IC-L). Then, the proposition expressed by (IC-L), in a mediate way, circumscribes all the possible acts that constitute all the possible valid inferences following (IC).

Thus we have the following reformulation:

(OFN-2) A descriptive law of logic functions as the fundament of the corresponding rule for a certain type of inference, because it circumscribes the range of all the possible valid inferences according to the rule in a mediate way.

If there is no way to reduce possible inference, Husserl argues, in order to give an ontological explanation of the validity of inference rules, we have no choice but to commit to a super-subjective “consciousness in general” [*Bewußtsein überhaupt*] in which all the possible acts are located. The necessity of such a heavy ontological decision may be a good reason to accept Husserl’s own view.<sup>1</sup>

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<sup>1</sup> In § 45, Husserl gives such a kind of argument against anti-naturalism which admits NC but not TC: if an ontological explanation must be given to that sort of anti-naturalism, one might have no other choice than to commit to consciousness in general in order to make room for possible inferences prescribed by normative logical laws. Of course this argument would not be convincing, if there is no need for the anti-naturalist in question to give any ontological explanation of *a priori* normative logical laws. But is an ontological “free lunch” available in the field of the philosophy of logic? This seems to be an important question, which, unfortunately, it is not the place to discuss here.

## A Concluding Remark

In conclusion, I shall, in a short remark, give an answer to a question concerning the topic I have discussed so far. Husserl's view the nature of logic is so complicated that it is very natural to ask what is the point of it. *Why should we believe in his view?*

To this question the following answer is to be given.

According to Husserl, logic as a study of propositions has "formal ontology" as its counterpart (cf. § 67): in just the same way as logic investigates formal conditions for the truth of propositions, formal ontology investigates formal conditions for the existence of objects in general.<sup>1</sup> Thus laws and principles of logic, such as the principle of non-contradiction, are transferred into laws of formal ontology. It is such a largely Aristotelian view that Husserl wants to save by claiming that logic is *au fond* an *a priori* descriptive science.<sup>2</sup> If logic is not a descriptive science, one cannot claim that it is not only a science of truth, but also a science of being.

This also makes intelligible Husserl's claim that what he calls "theory of cognition" [*Erkenntnistheorie*] is (formal) metaphysics (cf. Husserl [2001a: 5; 2001b: 11; 2002: 29]). In so far as it is a science of the conditions of possibility of truth, logic is also about the objective conditions of possibility of cognitions as acts of grasping a truth (cf. § 65). Thus logic conceived as a theory of cognition naturally has the formal theory of being in general, namely formal metaphysics or ontology, as its counterpart. Husserl's claim that the theory of cognition is (formal) metaphysics, we might say, expresses the same thought in a somewhat misleading way (namely, in misleadingly suggesting that both theories could be identical).

What is really unique and interesting about Husserl, however, is the fact that, while he considers the theoretical conception to be fundamental for logic and thus keeps the Aristotelian view, in the *Prolegomena* he never tries to refute or to abandon the *a priori* normative or even the psychological con-

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<sup>1</sup> Such ontology is called "formal," because it is topic-neutral: it investigates laws of objects that hold regardless of kinds to which those objects belong.

<sup>2</sup> See Barnes [1995: 71–2] discussing on a passage of *Metaphysics* (1005a19–24), where Aristotle claims that "axioms" belong to the inquiry into being qua being. At the same time, however, one must be careful about such an Aristotelian realistic understanding of Husserl's formal ontology, at least as far as *Logische Untersuchungen* is concerned. As Benoist [2010] argues, in the book Husserl introduces formal ontology as a science on those objects in the wider sense of the word, which are strictly distinguished from simple objects [*schlechte Gegenstände*] on the level of reality.

ception of logic. What he tries to do is to clarify these three different conceptions and their relations and to save each of them as being legitimate. What Husserl attacks under the name of “psychologism” is the misunderstanding or misevaluation of these conceptions, not the psychological conception as such.

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