

REJOINDER TO PROFESSOR MICHAEL LOUX*

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Your comments are excellent. As a sequel to the presentation of my paper, they were the perfect means both of establishing the requisite rapport about the topics and of presenting the proper challenges that could make our discussion really useful. I am very grateful for your willingness to prepare them in such a short notice.

1. I am pleased that you found my discussion about the need for unconflicting the problems of individuation and of diversification worthy of your endorsement. Thus, we can look into the history of philosophy from the same perspective in this regard.

2. You claim that neither the problem of individuation nor the problem of differentiation "need ever really arise in the context of ontology." I do not know what exactly you are claiming. But at least in appearance I am most anxious to disagree with you. Perhaps those problems need not arise in "the context of epistemology," but they are essential problems in ontology. As I see it, in ontology we are interested in learning about the different structures and ingredients of each and every entity. Those problems, as well as the other seven problems mentioned in Appendix No. 1 to my "Individuation and Non-identity," are problems of that sort.

3. You pursue your task of explaining why there is no prob-

* This rejoinder continues the dialogue opened by Professor Michael Loux on pages 105-108 of this issue of *Crítica* in his comments on Professor Castañeda's paper, "Individuation and Non-identity." The rejoinder was written in the form of a letter to Professor Loux in November of 1973.

lem of individuation on the second page. You start, fairly and correctly, by characterizing the problem as that "of *specifying* [my underlining] just what it is in *an individual* [also my underlining] that makes it the sort of thing which, while not exemplifiable by anything else, can itself exemplify properties." Then you ask right away: "But why should there be any problem here?" And I am at a loss to appreciate this question, unless you mean to imply that there is *nothing* that can be specified. But if this is what you mean to imply, then you are proceeding too fast (I was tempted to say that you were begging the question). It seems to me that we must understand the question in such a way that this negative answer, or zero-answer, is an open alternative. But being an open alternative, it is an alternative that, if chosen, must be chosen in full awareness of the data surrounding individuation. That is, we must explain *why* there is nothing to specify rather than something. So, it seems to me there is a problem.

4. You reinforce your question by asking whether there is a similar problem about properties. Well, no. Since properties are not individuals, there is nothing that can make them individuals, i.e., there is nothing to be specified as the individuator of properties. Your characterization of the problem of individuation immediately yields a zero-answer in this case: properties do not satisfy the conditions of the question; they *exemplify*.

5. Your next step is excellent. It moves our discussion to a deeper level, and I am grateful for your having asked the question it contains.

You are right. An individual, as we are using the word in the present discussion, is an entity that has *first-order* properties, and a first-order property is, of course, a property that an individual has. And you correctly, and we cannot emphasize enough how correct you are here, proclaim that the two notions are so interrelated that one cannot be more primitive than the other. I fully endorse this.

6. I am not analyzing away the notion of being a first-order property in terms of the notion of an individual, or vice versa. I am *not* analyzing anything away. I am *analyzing* individuation in the sense of revealing its composition. We have individuals and we have first-order properties; in a purely Platonic non-empirical world, the latter could exist without the former. But even if first-order properties and individuals need their mutual ontological support, we still want to understand how they relate to one another: we want to understand what the having of a first-order property by an individual consists of. This is part and parcel of the problem of individuation: even if what individuates does not account for the having of properties, it determines the specific way in which individuals have properties as contrasted with the way in which properties themselves have their own properties.

In short, and in general, having established that two notions are equally primitive, we still have the problem of accounting for their relationships.

7. Although there is a sense in which I am constructing the notion of an individual out of properties (first-order properties, of course), I do not particularly enjoy the use of the word 'construction' to describe what I am doing. If by 'notion' we understand our capacity to think of individuals, I suppose there is no harm in saying that our notion of individuals is constructed out of our notions of properties. But I reject the view that exhibiting biconditional or two-way relationships or isomorphisms is to construct an entity in a way that implies that that entity is being eliminated, or demoted in ontological status. Ontological analysis, in my sense, reveals structures of entities, but there is no elimination of entities.

Let me illustrate the point with one example outside philosophy, but an example that has ontological significance, and one that you may find worth discussing in any case. Some philosophers have the idea that the scientific view that an ordinary table (to take Eddington's example) is made up of molecules, or atoms, or waves of atoms, amounts to a 'reduc-

tion' or elimination of the ordinary table we started with. If this is naïvely argued, an unavoidable perplexity comes to the surface. If we start with the proposition that the ordinary table is the same as a system of molecules, then if the statement is true, there *has* to be the ordinary table: otherwise, since it is the *same* as a system of molecules, this system is also a non-existing one. This leads to the sophisticated view that there is a new sense of 'is' equating the existing systems of molecules with the non-existing (?) ordinary tables. But this also sounds contradictory. Thus, we are led to some mongrel and obscure view according to which the ordinary table is and is not (to put it in Parmenidean terms), or has no decent ontological status.

You may say: "But surely the ordinary table and the molecular table have incompatible properties at the same time. For instance, the former is solid and the latter is not. Hence, they must be different." I do not find this argument, even when spelled out as fully as I have ever seen it, persuasive. The argument has to clarify what 'solid' means. There is the sensible solidity, which consists of having a surface that appears unbroken, and there is the physical solidity. The molecular table, which of course is the same ordinary table, has both. The argument would show that sensible solidity is causally relative to certain contexts of perception, and the realization of this relativity may require the abandonment of an ordinary view about the ordinary table. But this is precisely what we expect science to do for us: to help us learn more about the very objects we find in our world.

8. Returning to our problem. Just as physics does not 'reduce' or eliminate ordinary physical objects, but explains their composition, ontology explains how individuals are composed of, and have, properties, without 'reducing' or eliminating the former in terms of the latter.

The section on emergents in my paper was meant in part to insist that there is no ontological 'reduction' of individuals to properties. I use the term 'emergent' in such a way that an

emergent entity is an entity with the full ontological status and privileges of its rank. (I don't say 'category,' for we are dealing here with matters that lie beyond the ordinary classification into categories.)

9. I do not object to saying that in my view properties are more primitive than individuals, if this is not coupled with the view that the compound somehow has no ontological status. Again, my point about emergent entities should be kept within view.

10. The study of logistic systems has been excellent for philosophers. (In philosophy we deal with general structures of reality and experience, and such structures undoubtedly are mathematical in a broad sense. The study of formal systems is in any case heuristically valuable.) But that study has, in my opinion, helped to spread the error of thinking that isomorphisms constitute ontological eliminations. Let me arrive at the source of this error. The logical work of proving the consistency or completeness of a formal system is greatly attenuated by taking advantage of as many isomorphic relationships that can be found, so that the work is done on only one pair of each isomorphism. Thus, for the purpose of constructing proofs of meta-theorems it is valuable to have few "primitive" signs and consider others introduced by means of isomorphisms. These isomorphisms, called definitions, are then taken to represent isomorphisms between formulas in the system under consideration and formulas in a meta-system. This produces the picture of an elimination of a part of a rich system into its meta-system. There is really no harm in this picture. After all, it really does not matter whether some statements we make about the world are formulated in an object-language or in a meta-language which includes the former, especially when we realize that this distinction is arbitrary depending on definitional isomorphisms. But then the idea creeps in that somehow the object-language alone has ontological significance — often on the invalid ground that

a meta-language is about object-languages. It is easy to forget that the isomorphism introduced under the name of 'definition' do *not* make the *definienda* expressions or sentences about symbols, but remain alternative ways of making statements about the world.

The moral is that most so-called definitions are not schemata for ontological elimination, but are schemata exhibiting isomorphisms between entities of precisely the same ontological rank.

11. You ask about the criteria for the selection of properties fit for inclusion in sets constitutive of concrete individuals. I do not mind saying that they are first-order properties. Since this criterion does not involve any ontological elimination of individuals, there is nothing objectionable here. There is an epistemological problem: how can we *tell* a first-order property from a property of a higher order? We must be able to tell, if we are able to identify, and think of, individuals. But please note that my analysis of individuation cannot be affected by the fact, if it is a fact, that we can only perceive and think first-order properties that are instantiated by individuals. This only means that we apprehend first-order properties that are *had* (in the sense that my account explains, whether correctly or incorrectly) by individuals in the very act of apprehending the having individuals.

Again, once the proper role of ontological analysis is brought to the foreground, the ontological and the epistemological issues fall in their proper places.

12. Once we separate the epistemological problem from the ontological one, you may see that it really does not matter very much if we allow a rich ontology that houses individuals that contain in their constitutive sets properties of different orders. It will be then a metaphysical law that such individuals cannot exist. First-order properties would then be those which belong to existing individuals and their com-

pounds, etc. Again, this is *not* a schema of ontological elimination, but one of exhibition of ontological structures.

13. To sum up my rejoinder to your comments on what you call the second part of my paper. We seem to be operating with a different conception of ontological analysis. I hope that the several parts of my discussion can at least succeed in halting the flow of your objections to my view of individuation. I also hope that they persuade you that your objections depend on a different view of what ontological analysis, or ontology (since the word 'analysis' is not crucial at all), is supposed to do. Furthermore, I hope very much that we come to an agreement about the task of ontology, definitions, etc.

14. You conclude your comments with a series of useful questions. They were very valuable in our discussion during the colloquium. They are the right questions that an attentive reading of my paper, as yours was, is bound to produce. Most of the answers lie in "Thinking and the Structure of the World" to which "Individuation and Non-identity" is an introduction. As I promised you, a copy of the former paper is attached to this rejoinder. I do hope very much that you have the time and patience to go through it and make me the present of your critical comments. I am sure that at least some of your questions can be reformulated and would still demand careful consideration. I will proceed to say something in connection with some of your questions.

15. I have said above something about the membership of the sets constituting individuals. Yes, I am committed to a strong version of indiscernibility. I will argue for it in a paper continuing "Individuation and Non-identity." But the sets of properties making up individuals do not guarantee the uniqueness of the existence of the individuals. They guarantee uniqueness of the individuals. This uniqueness can be traced to the uniqueness of the constitutive sets of properties.

The constitutive sets are finite as well as infinite. Roughly, an individual is what it appears to be: the present Queen of

England is the individual constituted by the property being the present Queen of England. It is a different individual from the married present Queen of England, and from the wife of the present Duke of Edinburgh. But all of these individuals are, in my terminology, *consubstantiated*. For any property, say, F-ness, each of those individuals is also consubstantiated with the individual constituted by a set of properties which is the union of the set of properties composing those individuals and the unit set being F. Hence, there is an infinite individual, a Leibnizian individual, that has all the properties in the finite individuals consubstantiated with it. All of this is explained in "Thinking and the Structure of the World."

The issue of analyticity is important. This has plagued all the bundle theorists from the very beginning. I solve the problem by distinguishing the trivial predication discussed in the preceding paragraph, which is analytic, from *consubstantiation*, which is contingent. Thus, an ordinary object is ultimately analyzed (but not eliminated in any way) as a semi-lattice of consubstantiations. Thus, I am a bundle theorist several times over. Then something really exciting happens. All the contingency of the world that does not involve thinking is concentrated on one dyadic relation! This simplicity still produces awe in me. The universe is rich and complex, but it is extraordinarily tidy!