

ACTUAL EXISTENCE, IDENTITY AND ONTOLOGICAL PRIORITY

ABSTRACT. The paper first distinguishes ontological priority from epistemological priority and unilateral ontic dependence. Then explications of ontological priority are offered in terms of the reducibility of the actual existence or identity of entities in one ontological category to the actual existence or identity of entities in another. These explications lead to incompatible orders of ontological priority for individuals, properties of individuals and states of affairs. Common to those orders is, however, that the primacy of the category of individuals is abandoned. This primacy is challenged in the paper also by epistemological arguments, and an onto-anthropological explanation is offered for the very common but false idea that individuals are ontological prior to all other kinds of entities. Finally ontological priority is discussed with respect to a fully specified system of ontological categories.

In medieval times it was a familiar philosophical idiom that one entity is *prior* to or *precedes* another entity. This, of course, did not normally mean – in philosophical discourse – that an entity is (or exists) in a temporal sense before another, but it did include a judgment of value: the entity which was prior to another entity was in a sense also more valuable than the latter, although this judgment of value surely did not constitute the central meaning of the phrase “*x* is prior to *y*”. Today we prefer to say that one entity is *more fundamental* or *more basic* than another. Note that the valuative aspects of meaning have disappeared from the modern expression. For brevity’s sake, I will here use “*x* is prior to *y*” instead of “*x* is a more fundamental entity than *y*”.

As in medieval times, there still are two ways of understanding “*x* is prior to *y*”: it may be understood as “*x* is epistemologically (*in ordine cognoscendi*) prior to *y*”, or as “*x* is ontologically (*in ordine essendi*) prior to *y*”. The two orders of priority can differ radically in their ranking of entities. For example, to later medieval philosophers, for whom God was still indisputably first in the order of being, God was nevertheless last in the order of (*our*) cognition. I will concentrate in this paper on an elucidation of the relation of *ontological priority*, keeping in mind that ontological priority cannot be entirely separated from broadly epistemological issues. After all, in analyzing the relation of ontological priority we have to use

concepts, *our* concepts, the concepts that are available *to us*, and in making judgments of ontological priority we are judging according to *our* lights, according to how instances of ontological priority appear *to us*. We have no cognitive grasp of the relation of ontological priority as it would be without our cognitive grasp of it.

In clarifying the relation of ontological priority there are many questions that have to be answered, foremost the question whether there is indeed *the* relation of ontological priority. Are there not *several* relations of ontological priority? There immediately appear to be at least two such relations. According to relation 1 of ontological priority, it is in each instance a personal affair, as it were, between two entities. According to relation 2 of ontological priority, it is in each instance merely a matter of which *ontological categories* the two compared entities belong to; this has the consequence that entities that belong to the same ontological category will be equals in the ontological ranking. Thus, what is in fact ranked according to relation 2 of ontological priority are not individual entities, but categories of them; or in other words, individual entities are ranked merely *qua* representatives of ontological categories.

I will restrict my attention to the second relation of ontological priority because only the second relation really deserves being called a “relation of ontological priority”. For the first relation, the designation “inverse of the relation of unilateral *ontic* dependence”¹ would be more appropriate, since that relation, in contrast to the other one under consideration, presupposes no comprehensive categorial system of entities. To provide such a system is the main theoretical aim of ontology, and only such a relation should, properly speaking, include the epithet “ontological” in its name that intrinsically refers to the theoretical aims of *ontology*. In addition, ontological priority has certainly been understood, and still is understood, more frequently in the sense of relation 2 than in the sense of relation 1; thus, established ontological usage also justifies the choice I have made among the two relations.

Before I continue with the explication of ontological priority in the sense of relation 2, let me briefly comment upon how ontological priority (in the sense now chosen) is related to unilateral ontic dependence (or its inverse). Both relations are in fact independent of each other. Even without further explications, it is clear that an entity *X* may unilaterally ontically depend on an entity *Y*, although *Y* is not ontologically prior to *X*. If *X* and *Y* belong to the same ontological category, then *Y* is not ontologically prior, but ontologically equal to *X*; nevertheless, it may well be that *X* is unilaterally ontically dependent upon *Y*, that it cannot exist without *Y*, although *Y* can exist without *X*. A hemisphere of a sphere made of metal is

not ontologically prior to the sphere, but the sphere is unilaterally ontically dependent on this hemisphere. Conversely, *Y* can be ontologically prior to *X*, although *X* is not unilaterally ontically dependent on *Y*. If the existence of *X* has nothing to do with the existence of *Y*, but the category of *Y* is prior to the category of *X*, then we have precisely the situation which has just been described as possible. And, indeed, it is not implausible that I am ontologically prior to the property of being made of gold, although the property of being made of gold is certainly not unilaterally ontically dependent on me.

The first postulate we ought to put down for the relation of ontological priority now under consideration is obviously the following:

- (P1) *X* is ontologically prior to *Y* iff the category of *X* is ontologically prior to the category of *Y*.

The relation of ontological priority between entities is defined by the relation of ontological priority between categories, and we now have to turn to the analysis of the latter relation.

(P1) presupposes that there is one and only one ontological category for each entity *X*: *the* category of *X*. This seems problematic; might there not be entities that belong to no category or to several categories at once? In speaking of ontological categories we have to refer to a certain system of them, for of course there are infinitely many ways of exhaustively dividing up all entities into disjoint classes, most of them entirely uninteresting. A system of ontological categories should be fruitful for the formulation of ontological theories (and *ideally*, of course, it should be fruitful also for the formulation of other, non-ontological theories); it should, in short, be *ontologically significant*. Suppose we are in the possession of such a system; perhaps it is even the best system we can find; let us call it OS. Then each entity falls under at most one category in OS, since its categories logically exclude each other; that is simply the way each and every system of ontological categories is to be constructed. But it may easily happen – indeed, precisely because OS is supposed to be ontologically significant – that there is some entity that does not fall under any category in OS. It is really very difficult to capture everything in a truly significant system. But we can forestall the possibility just mentioned by adding to all the *proper* categories in OS one *improper* category which is destined to receive all entities that cannot be allotted to any of the proper categories in OS; ideally, of course, the improper category will remain empty. By this simple trick we can guarantee that OS exhausts ontological space, and, referring to OS, we now can indeed assert that there is one and only one category for each entity.

For the time being, we may leave it open whether OS contains finitely many or infinitely many categories, whether those categories are non-empty or not. I will assume in what follows that this or that ontological concept is a category in OS; I will assume this first of all for the category of *individuals*. This category is surely non-empty. But if the category of individuals were the only non-empty category in OS – this is the position that a strict nominalist would defend – then the relation of ontological priority *between entities* would be empty. For take any two entities X and Y . Under the supposition that the only non-empty category in OS is the category of individuals, both X and Y must be individuals, since OS exhausts all entities; and hence the category of X is the category of Y . But then X is not ontologically prior to Y , because no category is ontologically prior to itself. Rather, X is *ontologically equal* to Y , because every category is ontologically equal to itself. Consider that we have as a counterpart of (P1):

- (P2) X is ontologically equal to Y iff the category of X is ontologically equal to the category of Y .

Moreover, if the category of individuals were the only non-empty one in OS, ontological priority *between categories* would become an empty relation too; for it seems reasonable to hold that category K being ontologically prior to category K' requires the non-emptiness both of K and of K' . Thus, considerations of ontological priority, whether with respect to entities or to categories, are of interest only if there is at least one other category in OS which is non-empty.

Strict nominalism is a position seldom defended. Much more frequently one finds a position that may be termed “set-theoretical nominalism”. Set-theoretical nominalists (for example, Quine and David Lewis) hold that in addition to individuals there are all the sets in the hierarchy of sets that has the sets of individuals as its basis – and that there is nothing else. But one need not be a set-theoretical nominalist in order to hold that besides individuals there are at least sets of them – a position most ontologists would agree with. In recognition of this, let OS *provisionally* comprise, besides the non-empty category of individuals, the non-empty category of sets of individuals.

It seems evident that the category of individuals is ontologically prior to the category of sets of individuals. But it is not at all clear what is the content of this claim. It is, of course, very plausible to hold that individuals are *epistemologically* prior to sets of individuals. But we are here concerned with *ontological*, not with epistemological priority. Could it be that the obviousness of the ontological priority of individuals to sets

of them is simply due to a confusion of ontological with epistemological priority? Could it be, indeed, that we really do not have any clear idea what ontological priority, in this particular case and in general, amounts to?

Let me consider two arguments that aim to establish the ontological priority of individuals to sets of individuals:

(1) Sets are abstract entities, individuals are not. *Therefore*: individuals are ontologically prior to sets of individuals.

The first thing to be said about this is that the second premise “individuals are not abstract entities” is rather doubtful. Are there not abstract individuals? Well, perhaps there is a sense of “abstract” in which there are indeed no abstract individuals. Note that this sense of “abstract” must be a purely ontological sense, since what we are aiming at is *ontological* priority; a purely ontological sense of “abstract” is, however, not at all obvious, at least to my mind. The negation of “abstract” is “concrete”, and the ordinary meaning of the latter term (hence also the ordinary meaning of the former) seems to involve an essential reference to us and our cognitive faculties: concreteness is an aspect of experience. Can anything be legitimately called “abstract” in a sense that leaves this ordinary meaning out of consideration?

A purely ontological definition of “abstract” might seem to be available by defining: x is abstract $:= x$ is not a spatio-temporally located. But aside from the fact that this definition provides on the one hand no intrinsic reason for assuming that there are no abstract individuals, and makes it on the other hand doubtful whether sets of individuals are generally abstract (why not say that $\{x\}$ is precisely where spatio-temporal individual x is, and that it exists precisely as long?), the proffered definition is heavily dependent on questionable epistemological considerations: by presupposing that the spatio-temporally located entities are precisely those which are, in principle, empirically accessible to us. Suppose it turned out that some entity is not spatio-temporally located, but nevertheless empirically accessible to us (this is what an impressive number of mystics is telling us). We would not react to this by applying the above definition, saying “well, some abstract entity has turned out to be empirically accessible to us”; we would not react in this way, *because an entity that is empirically accessible to us simply cannot be an abstract entity*. This shows that there are possible circumstances where the above definition yields grossly inadequate results (and would be discarded), and hence it constitutes an inadequate explication of “abstract”.

It is of no help to offer an enumerative definition: abstract entities are sets, properties, relations, propositions . . . , etc., for such a definition offers no reason at all why non-abstract entities should be ontologically prior to

abstract ones. And this seems to be the problem with every purely ontological sense of the word “abstract” (if there be such senses) which is such that all sets and no individuals are abstract. Why should this be a reason for holding that individuals are ontologically prior to sets of individuals? Why should non-abstract entities be ontologically prior to abstract ones? We cannot answer: because non-abstract entities are epistemically more accessible to us than abstract entities. And a truly ontological answer seems not to be available either.

(2) The category of sets of individuals is functionally dependent on the category of individuals: the former category is a category under which all entities are entities *of* (functionally dependent on) entities in the latter category; every set of individuals is a set *of* individuals. *Therefore*: individuals are ontologically prior to sets of individuals.

But why should the fact that all sets of individuals are entities *of* individuals make individuals ontologically prior to sets of them? After all, the fact that every father is the father *of* a child (hence functionally dependent on a child) does not make children ontologically prior to fathers.

If we want to uphold the ontological priority of individuals to sets of individuals, then we have to look for better arguments than (1) and (2). More importantly, we first have to establish an adequate sense in which one category of entities can be ontologically prior to another. The best way to a definition of ontological priority, it seems to me, is to make use of either of two central ontological concepts: *identity* and *actual existence*. Then we can define (for non-empty categories K and K' in OS):

- (D1) K is ontologically prior to K' iff the identity of the entities under K' is reducible to the identity of entities under K , but not vice versa.

Or alternatively:

- (D2) K is ontologically prior to K' iff the actual existence of the entities under K' is reducible to the actual existence of entities under K , but not vice versa.

To these two alternative definitions of ontological priority there correspond two alternative definitions of *ontological equality*: (D1') and (D2'). Simply replace in (D1) and (D2) “ K is ontologically prior to K' ” by “ K is ontologically equal to K' ”, and the clause “but not vice versa” by the clause “and vice versa”. (Note that the concepts of reducibility here invoked are not asymmetric; this is contrary to some accepted usages of the predicate “is reducible to”, but not to all; for example: functions are said to be reducible to sets; but sets are also said to be reducible to functions, and these two

claims are certainly not understood in such a way as to contradict each other.)

But having come thus far, a surprise is waiting for us: individuals and sets of individuals turn out to be ontologically equal, no matter whether we choose (D1') or (D2'). The identity of sets of individuals is reducible to the identity of individuals, since sets of individuals are identical if and only if their elements are identical. But the identity of individuals is also reducible to the identity of sets of them, since individuals are identical if and only if they are elements of identical sets of individuals. Moreover, the actual existence of sets of individuals is reducible to the actual existence of individuals, since a set of individuals actually exists if and only if it is non-empty and all its elements actually exist. But again the actual existence of individuals is also reducible to the actual existence of sets of them, since an individual actually exists if and only if it is an element of an actually existing set of individuals.

Somebody may object: we do not *understand* the identity of sets of individuals unless we have previously understood the identity of individuals, whereas we do not need to understand the identity of sets of individuals before understanding the identity of individuals. Therefore individuals are prior to sets of individuals.

But the objector is obviously referring to epistemic considerations – considerations that have to do very directly with us and our cognitive faculties – while all we are concerned with here is ontological priority. That individuals are *epistemologically* prior to sets of individuals is uncontroversial, but not our concern.

Suppose now that we adhere to an intensionalistic position in ontology and that we have among the non-empty categories of OS besides the category of individuals the category of *properties of individuals*, which *replaces* the category of sets of individuals.² Nevertheless, the above considerations involving sets of individuals can almost be repeated verbatim. *Prima facie*, individuals are ontologically prior to their properties. This is what we all have learned from Aristotle. But on closer inspection the Aristotelian thesis turns out to be indefensible (at least according to our present lights). The arguments (1) and (2) above fail for properties of individuals as much as they fail for sets of them. And if we apply definition (D2'), then individuals and properties of individuals are found to be ontologically equal: The actual existence of properties of individuals can be reduced to the actual existence of individuals, since properties of individuals are actually existent if and only if they are exemplified, and exemplified by actually existent individuals only. And vice versa: the actual existence of individuals can be reduced to the actual existence of properties of indi-

viduals, since an individual actually exists if and only if it exemplifies an actually existent property of individuals.

But note that we are here modelling the actual existence of properties on the basis of the received conception of the actual existence of sets: the actual existence of a set requires that all its elements actually exist, and hence by analogy: the actual existence of a property is taken to require that all its instances actually exist. But alternatively we could merely require for the actual existence of a property that *at least one* of its instances actually exists. If we choose this alternative weaker requirement, then, indeed, the actual existence of individuals can no longer be reduced to the actual existence of properties of individuals, since then an individual that does not actually exist might nevertheless exemplify an actually existing property. I will come back to this after formulating a general reducibility principle for actual existence near the end of the paper.

According to (D1), properties of individuals could even be considered to be ontologically prior to individuals (Plato would certainly be pleased about this): The identity of individuals is reducible to the identity of properties of individuals, since individuals are identical if and only if they exemplify identical properties of individuals. This is what the old Leibniz-Principle says (which, in order to be useful for the present reduction, may be taken to refer to all properties of individuals, non-relational and relational ones, *excepting* the properties of being identical with this or that individual). But it is not so clear that the identity of properties of individuals is conversely reducible to the identity of individuals. We have the well-known examples of properties of individuals which are exemplified by the very same individuals, but which are nevertheless non-identical. However, the identity of properties of individuals is not reducible to the identity of individuals because properties of individuals are identical if and only if they are exemplified by the same individuals, but rather because such properties are identical if and only if it is *necessarily* the case that they are exemplified by the same individuals. Yet, are there not also examples of properties of individuals for which it is necessarily the case that they are exemplified by the same individuals, but which are non-identical nevertheless? What about the property of being an equilateral triangle and the property of being an equiangular one? They certainly seem to be *two* properties. And if they are, what does then become of the converse reducibility of the identity of properties of individuals to the identity of individuals?

According to the *coarsegrained* conception of properties, necessary co-extension is indeed generally sufficient for property-identity; but according to the *finegrained* conception of properties, it is not. Thus, in view of the above considerations and applying definitions (D1) and (D1'): properties of

individuals are ontologically equal to individuals in case the coarsegrained conception of properties is assumed; but if the finegrained conception of properties is presupposed, then properties of individuals are in fact ontologically prior to individuals.³ In both cases the traditional ontological order is not confirmed. Nor is it unequivocally confirmed, as we have seen, if we use definitions (D2) and (D2').

Is there a category in OS which is ontologically prior both to the category of individuals and to the category of properties of individuals? Given that there are other categories in OS than the two we have just discussed, it is by no means guaranteed that those other categories must either be ontologically prior or posterior to, say, the category of individuals, or ontologically equal to it. The relations of ontological priority and equality – whether defined by (D1) and (D1'), or by (D2) and (D2') – do not necessarily induce a *complete* quasi-ordering on OS. In fact, the definitions *alone* merely guarantee that the relation of ontological priority is asymmetrical (hence irreflexive), that the relation of ontological equality is symmetrical, and that ontological priority excludes ontological equality. Everything else depends on how the reducibility of *K'*-identity to *K*-identity, or of actual *K'*-existence to actual *K*-existence, is interpreted. Indeed, there may not be a global interpretation, and we may have to decide for each pair of categories what is to be meant in their particular case by the invoked relation of reducibility (of identity or of actual existence). In any case, we should aim at least at obtaining the following principle for the reducibility of identity (and the analogue of it for the reducibility of actual existence):

Reflexivity and Transitivity

For all categories *K*, *K'* and *K''* in OS: *K*-identity is reducible to *K*-identity, and if *K*-identity is reducible to *K'*-identity, and *K'*-identity to *K''*-identity, then *K*-identity is reducible to *K''*-identity.

But suppose, getting more deeply involved in intensionalism, that OS contains the non-empty category of *states of affairs* besides the category of individuals and the category of properties of individuals. Just as for properties, one can distinguish a coarsegrained and a finegrained conception of states of affairs. Let us decide, both for properties and for states of affairs, in favor of a coarsegrained conception. This has the consequence we have already seen: that individuals and properties of individuals turn out to be ontologically equal – even according to (D1'). For states of affairs, choosing the coarsegrained conception of them has the immediate consequence that states of affairs are identical if they necessarily co-obtain; given the coarsegrained conception of states of affairs, it is a generally sufficient

condition for the identity of states of affairs that they cannot obtain without each other; it would not have been a generally sufficient condition if we had chosen the finegrained conception.

Now, what is the position of (coarsegrained) states of affairs in the order of ontological priority with respect to individuals and (coarsegrained) properties of individuals? If we proceed on the basis of definition (D2), then it is seen *that states of affairs are ontologically prior to individuals*: the actual existence of individuals is reducible to the actual existence of states of affairs, since an individual X actually exists if and only if the state of affairs *that X actually exists* actually exists, or in other words: *obtains*. But the actual existence of states of affairs is apparently not reducible to the actual existence of individuals. There are states of affairs whose actual existence is quite independent of the actual existence of individuals (for example, the state of affairs *that A or not A* , for any A). And even if there were no actually existing individuals at all, there certainly would still be obtaining states of affairs, even non-tautological ones. Indeed, the state of affairs that there are no actually existing individuals would be an example of a state of affairs not merely actually existing (or obtaining) in spite of the supposed counterfactual situation, but *because* of it.

Given (D2), arguments which are completely analogous to those I have just brought forward show that states of affairs are also ontologically prior to properties of individuals. Thus, on the basis of (D2), states of affairs are ontologically prior both to individuals and to properties of individuals.

But what if we proceed on the basis of (D1)? We find that the identity of individuals is reducible to the identity of states of affairs, since individuals, x and y , are identical if and only if, for every property of individuals F , the concatenation of F with x is identical to the concatenation of F with y . (The concatenation of a property of individuals with an individual is a state of affairs.⁴) We also find that the identity of properties of individuals is reducible to the identity of states of affairs, since properties of individuals, F and G , are identical if and only if, for every individual x , the concatenation of F with x is identical to the concatenation of G with x . It is not apparent that the identity of states of affairs is conversely reducible either to the identity of individuals or to the identity of properties of individuals. But this needs closer inspection.

For there is indeed a way of reducing the identity of states of affairs to the identity of properties of individuals, but it is a way that does not strike one as being particularly natural. If we have an appropriately wide conception of properties of individuals, then there is for each state of affairs P a certain property of individuals F such that the concatenation of F with any individual x is P . Availing ourselves of an operator of (functional)

abstraction λ , we have: For every state of affairs P and every individual x : the concatenation of $\lambda y(P \ \& \ \text{that}(y = y))$ with x is P . (Note that “&” is here connecting *singular terms* for states of affairs – “ P ” and “that($y = y$)” – to form a further singular term, it is not connecting sentences to form a further sentence.) $\lambda y(P \ \& \ \text{that}(y = y))$ may be called “the property of individuals corresponding to P ”. The identity of states of affairs can now be seen to be reducible to the identity of properties of individuals, since states of affairs are identical if and only if the properties of individuals corresponding to them are identical. Therefore, if we accept properties of individuals that correspond as indicated to states of affairs and interpret ontological equality on the basis of definition (D1’), then states of affairs and properties of individuals are seen to be ontologically equal.

But on the basis of (D1’) there seems to be *prima facie* no way to reach the ontological equality of *individuals* and states of affairs. Nevertheless there is such a way: states of affairs are identical if and only if the properties of individuals corresponding to them are identical, and these properties, in turn, are identical if and only if it is necessarily the case that they are exemplified by identical individuals. Thus states of affairs are identical if and only if the properties of individuals corresponding to them are, as a matter of necessity, exemplified by the same individuals, and therefore the identity of states of affairs is (indirectly) reducible to the identity of individuals. Since we have already seen that the identity of individuals is also reducible to the identity of states of affairs, we thus have, on the basis of (D1’), the ontological equality of states of affairs to individuals.

Let me sum up the results reached so far (I , PI and S represent in an obvious manner the categories considered):

On the basis of (D1), (D1’):

$I \langle \rangle PI$, $S \langle \rangle PI$, $S \langle \rangle I$ (the 1-row).

On the basis of (D2), (D2’):

$I \langle \rangle PI$, $S \langle PI$, $S \langle I$ (the 2-row)

Both rows are in conformity with the formal properties of a quasi-ordering, but they do not agree with each other. At first sight it seems that the property of individuals $\lambda y(P \ \& \ \text{that}(y = y))$ – the property of individuals corresponding to state of affairs P – could be used even on the basis of (D2’) to obtain the ontological equality of states of affairs and properties of individuals. The actual existence of states of affairs appears to be reducible to the actual existence of properties of individuals, since a state of

affairs actually exists (or obtains) if and only if the property of individuals corresponding to the state of affairs is exemplified. But note that the exemplification of a property is not yet the property's actual existence, although the actual existence of a property certainly implies that it is exemplified. We can, therefore, only assert that the actual existence of states of affairs is reducible to the *exemplification* of properties of individuals, not that it is reducible to their actual existence. (Exemplification is not suitable for the explication of ontological priority and equality, since it is not a global ontological concept like actual existence or identity: individuals, for example, *cannot* be exemplified.)

Nor can $\lambda y(P \ \& \ \text{that}(y = y))$ be used for obtaining on the basis of (D2') the ontological equality of states of affairs and individuals. That a state of affairs actually exists if and only if the property of individuals corresponding to it is exemplified by an *actually existent individual* would indeed establish the reducibility of the actual existence of states of affairs onto the actual existence of individuals; but unfortunately it is simply false that a state of affairs actually exists if and only if the property of individuals corresponding to it is exemplified by an actually existing individual. (Remember that there would be obtaining states of affairs even if there were no actually existent individuals. Note that the "if and only if" invoked in assertions that justify reducibility-assertions is not simply material equivalence, but carries the force of conditional necessity. Reducibility-assertions themselves imply their necessitations, and so do their negations, and hence also – via (D1), (D2), (D1') and (D2') – assertions of ontological priority and equality. It is also a matter of necessity if a category is empty, and also if it is not.)

The 1-row and the 2-row do not agree, and apparently they cannot be brought into agreement. Thus the choice between the pair (D1), (D1') on the one hand and the pair (D2), (D2') on the other is a truly substantial choice. But there do not seem to be any clear objective criteria for making that choice. Yet we have to make a choice, since sound logical methodology forbids the double-defining of anything (for good reasons, as we have seen). Personally, I prefer (D2) and (D2') which yield the 2-row. On the other hand, the concept of actual existence, on which the 2-row is based, is a much more controversial ontological concept than the concept of identity, on which the 1-row is based. Therefore, let me very briefly remark how I conceive of actual existence. In contrast to other concepts of existence, it is for actual existence not necessarily the case that everything exists, and it is not the case that everything exists necessarily or necessarily not. Denying *actualism*, I would add that some entities do indeed not actually exist.

No matter whether we proceed on the basis of (D1) and (D1') or on the basis of (D2) and (D2'), the results reached contradict traditional views on ontological priority. Those views assume the ontological primacy of individuals. All other ontological categories are considered to be posterior to the category of individuals – if indeed those other categories are allowed to be non-empty. What is the explanation of this preference for individuals in the history of ontology? My colleague Erwin Tegtmeier has called the preference “reism” in his book on categorial ontology. So what is the explanation of reism, which in the hands of the nominalists is carried to truly fanatical extremes? It is not satisfactory to point out that in reism ontological priority is being confused with epistemological priority. For there are fairly obvious considerations which deliver with respect to epistemology the very same priority and equality results that have been reached with respect to ontology. Consider ordinary experience. Do we experience *pure* properties? No. *Pace* Plato and what he says about *Beauty*, we do not even have any idea of what it would be like to experience a pure property, a property by and in itself without any reference to instances it has. Everybody agrees. But do we experience *pure* individuals? The answer has to be “No” again. *Pace* Plotinus and what he says about *the One*, we do not even have any idea of what it would be like to experience a pure individual, an individual by and in itself without any reference to properties it exemplifies. What we do experience are individuals that have or exemplify properties. But by the same token we should undoubtedly also accept that we do experience properties that are exemplified by individuals. Thus, in experience, individuals and properties of individuals are on a par. Indeed, they are in experience inextricably related to each other as constituents of wholes which we experience as well as individuals and properties, and which we may even be said to experience *primarily*: obtaining states of affairs. (By the way: that entities under *K* are – asymmetrically – constituents of entities under *K'* cannot be used to establish the ontological priority of either category: every entity under *K'* may need in it constituents from *K*; but likewise every entity from *K* may need to be in a whole from *K'*.) The recognition of these elementary truths about experience is blocked for so many people by the prejudice, thoughtlessly repeated over and over again, that properties and states of affairs are *abstract entities* which cannot be experienced. But to the unprejudiced the analysis of experience forcefully suggests that individuals, properties of individuals and states of affairs are epistemologically equal, that states of affairs are perhaps even epistemologically prior to both individuals and properties of individuals (the latter two remaining epistemologically equal). These epistemological

results agree remarkably well with the ontological ones exhibited by the 1-row and the 2-row.

Nevertheless, we certainly find it very hard to give up either the ontological or the epistemological priority of individuals to all other kinds of entities. There must be some sense, we believe, in which individuals are both ontologically and epistemologically prior to everything else, and *that* sense, we feel, is bound to be the correct sense. Why do we believe thus? The reason is not the authority of Aristotle, exerting in an Ockhamistic transformation a subterranean influence even to this very day. The reason is simply that we are individuals ourselves, or to put it in a different way: that individuals are entities more or less like us. This fact makes us look primarily for individuals in cognition, makes us direct our attention primarily to them, and *in this sense* individuals are indeed epistemologically prior to everything else, the above considerations on epistemological priority notwithstanding. But the fact of being individuals ourselves also makes us value individuals more than other entities, and this – quite understandable – judgment of value exerts a distorting influence on our judgments of ontological priority.

Racism is the attitude that accords unjustifiable preference to one's own race, sexism is the attitude that accords unjustifiable preference to one's own sex, and recently we even have learned about speciesism: the unjustifiable preference of one's own biological species. So I suppose we may add *categorism* to the list, which is the attitude that accords unjustifiable preference to one's own ontological category. Very many ontologists have been guilty of categorism: they have accorded unjustifiable preference to their own ontological category, the category of individuals. But I should hasten to add that speaking of *guilt* in this context is really entirely metaphorical. For in contrast to racism, sexism and perhaps even speciesism, there attaches no moral opprobrium to categorism. This is simply due to the fact that no living being can be hurt by categorism. All living beings are individuals, no entity that is not an individual is capable of adopting the attitude of categorism, all individuals that adopt categorism direct it against entities that are not individuals. So let the radical categorists, alias the nominalists, scour the world of properties, states of affairs, propositions, etc., they can do no harm in the name of ontological monism – quite unlike the radical racists, who can do and have done unspeakable harm in the name of racial purity. Unlike people, one cannot hurt properties, states of affairs, or any entity that is not an individual. And therefore categorism is not morally wrong, it is merely a mistake. Note that a correction of the mistake is not brought about by basically valuing properties of individuals, for example, as much as individuals, but by making no comparisons of value between

individuals and their properties at all. In this, too, categorism differs from racism and sexism.

Curiously, one might try to exploit the fact that only individuals can adopt categorism, or that only individuals can be hurt, for claiming general ontological priority for their category. For *adopting categorism* or *being hurt*, or more generally: *being a conscious entity* – properties which only individuals are capable of having – appear to be superior forms of existence. Leaving aside the fact that *only some* individuals have the capabilities for the mentioned superior forms of existence, we may observe that under every category some entities are capable of something all entities in other categories are not capable of. Why should the capability of being a conscious entity, which some individuals and no entities in other categories have, constitute a ground for their ontological primacy, while the capability of being exemplified by individuals only (the capability of *F* to be exemplified by some individual, it being impossible that it is exemplified by some non-individual), which some properties of individuals have and no entities in other categories, does not constitute a ground for the ontological primacy of properties of individuals? Why indeed? We can recognize a comparative judgment of value in this asymmetry between individuals and their properties – a characteristic capability of the former is valued higher than a characteristic capability of the latter – a judgment of value which seems to be founded on nothing else but categorism.

Yet, possibly the judgment of value is objectively true. Being a conscious entity could very well be an objectively superior form of existence (it has traditionally been considered to be one), while being exemplified by some individual, and necessarily not by all non-individuals, may not be such an objectively superior form of existence. But note that this, while justifying the attitude implied in our categorism, would be just as irrelevant for ontological priority as epistemic issues are irrelevant for it. Ontological priority has nothing to do with judgments of value, not even with those which are objectively true.

But if valuative considerations are allowed to infiltrate questions of ontological priority, then the very *incapabilities* of properties of individuals may be used for making them appear ontologically prior to individuals, contrary to the order of precedence suggested by the argumentation just given above, which was also value-based, but which, in valuation, adhered to a quite different point of view. Properties of individuals, in contrast to individuals, cannot be hurt, they cannot change intrinsically, they cannot be destroyed. Plato was very much impressed by this, and it led him to accord a superior status to properties of individuals – a status which in a

rather confused way was also conceived of as a status of ontological (and epistemological) primacy.

In closing, let me briefly consider the relation of ontological priority with respect to an infinite system of ontological categories (including, for example, all kinds of relations). OS, expanded to an infinite system of categories, can be inductively defined as follows:

- (1) I is the category of individuals.
- (2) S is the category of states of affairs.
- (3) If C_1, \dots, C_k, D are categories, then $\langle C_1, \dots, C_k \rangle D$ is also a category.
- (4) *Proper* categories of OS are only concepts that can be generated according to (1) – (3). In addition there is the *improper* category of OS: C^* .

In order to avoid any ontological or logical problems with categories, it is convenient to think of them (and of ontological concepts in general) as *linguistic* entities: general terms having a certain meaning; what is categorized by them are, however, entities *properly speaking: non-linguistic* entities. Categories having the form $\langle C_1, \dots, C_k \rangle D$ are categories of *functions*: $\langle C_1, \dots, C_k \rangle D$ is the category of all k -adic functions ($k \geq 1$) that are defined precisely for arguments from the categories C_1 to C_k (in that order) and whose values are entities from the category D . Categories having the form $\langle C \rangle S$ are categories of *properties*, $\langle I \rangle S$, for example, is the category of properties of individuals: they are functions that take individuals into states of affairs. Categories having the form $\langle C_1, \dots, C_k \rangle S$, with $2 \leq k$, are categories of *relations*: $\langle I, I \rangle S$, for example, is the category of dyadic relations of individuals. Like properties, relations are functions whose values are states of affairs.

We can then inductively reduce the actual existence of the entities under every functional category to the actual existence of the entities under its constituent categories, and ultimately, of course, to the actual existence of individuals and of states of affairs. Consider X , which falls under the functional category $\langle C_1, \dots, C_k \rangle D$:

Reducibility-Principle for Actual Existence

X actually exists iff there are actually existing entities Y_1, \dots, Y_k such that Y_1 falls under the category C_1, \dots, Y_k under the category C_k , and such that $X(Y_1, \dots, Y_k)$ [which falls under the category D] actually exists. ($X(Y_1, \dots, Y_k)$ is the concatenation of X with Y_1, \dots, Y_k , or in Fregean terms: the *saturation* of X by Y_1, \dots, Y_k .)

Given this transitive way of reducing the actual existence of entities under a functional category to the actual existence of entities under its constituent-categories, which have lower functional degree, we still do not have the ontological priority of the latter categories to the former, since we must in each case exclude the converse reducibility: a difficult problem, if it is to be solved in an entirely general manner, and it cannot be solved *completely* in a piecemeal fashion, since OS is now supposed to contain infinitely many categories. Remember also that the ontological priority of one category to another requires the non-emptiness of both categories; this leaves us with the problem of deciding which of the infinitely many categories in OS are non-empty.

If we stick with the most elementary categories in OS, with I , S , and $\langle I \rangle S$, or: individuals, states of affairs, and properties of individuals (PI) – supposing them to be non-empty – then we are pointed by the above reducibility-principle to yet another row of ontological priority: because individuals and properties of individuals can now be hardly considered to be ontologically equal to each other. The actual existence of properties of individuals F is reducible, according to that reducibility-principle, to the actual existence of individuals in combination with the actual existence of states of affairs: F actually exists if and only if there is an actually existing individual x such that $F(x)$ [the concatenation of F with x , which is a state of affairs] actually exists.⁵ But how could we now conversely reduce the actual existence of individuals to that of properties of individuals (perhaps in combination with the actual existence of states of affairs)? There is apparently no way to obtain this converse reduction. The previous results concerning the ontological priority of states of affairs to properties of individuals and to individuals remain valid,⁶ and thus we have:

$$I < PI, S < I, S < PI \text{ (the 3-row),}$$

which is a row of ontological priority incompatible with both the 1- and the 2-row presented above, but which is surely no less justified than they are. Judgments of ontological priority, even if we keep them clear of matters which are foreign to them (namely, epistemic and valuative matters), unavoidably depend on *our* theoretical decisions, with respect to which we are not in a position to establish whether they are objectively correct or not. Thus, in a rather indirect but nevertheless essential manner, ontological priority is dependent on *us*, since the very concept is to some degree the product of our own choices. Perhaps the considerations in this paper even suggest that our decisions (or conventions) are to such a high degree involved in determining the concept of ontological priority that the conclusion becomes unavoidable that there is no sufficiently objective concept of ontological priority at all.

NOTES

- ¹ For an extended discussion of ontic dependence (under the name of “ontological dependence”) see chapter 8 of Simons’ *Parts*.
- ² In intensional ontology, sets are treated as properties, sets of individuals, in particular, as properties of individuals. See the relevant chapters in my *Axiomatic Formal Ontology*.
- ³ One can also argue that properties of individuals are *epistemologically* prior to individuals, since we can determine the identity of individuals only through determining the identity of their properties, while the latter determining can apparently be done directly by us. But from a different angle, individuals, to the contrary, seem to be epistemologically prior to their properties, since we can determine the actual existence of a property of individuals only through determining the actual existence of the individuals that exemplify that property, which determination apparently can be arrived at directly by us.
- ⁴ The ontology of concatenation (or saturation) is treated exhaustively in *Axiomatic Formal Ontology*.
- ⁵ $F(x)$ being a state of affairs, “ $F(x)$ actually exists (obtains)” is tantamount to “ x is an instance of F ” or “ x exemplifies F ”.
- ⁶ We can give a new twist to the ontological priority of states of affairs to individuals by making use of the *property* of actual existence for individuals (which is a property of individuals): The actual existence of individuals is reducible to the actual existence of states of affairs, since an individual x actually exists if and only if the concatenation of the property of actual existence for individuals with x (which concatenation is a state of affairs) actually exists.

REFERENCES

- Meixner, U.: 1997, *Axiomatic Formal Ontology*, Kluwer, Dordrecht.
- Simons, P.: 1987, *Parts*, Clarendon, Oxford.
- Tegtmeier, E.: 1992, *Grundzüge einer kategorialen Ontologie*, Alber, Freiburg/München.

Institute of Philosophy
 University of Regensburg
 93040 Regensburg
 Germany