Philosophia Scientiæ

Travaux d'histoire et de philosophie des sciences

12-1 | 2008

(Anti-)Realisms: The Metaphysical Issue

Which Variety of Realism? Some Asseverations on the Dependence of Abstracta upon Concreta

Frédéric Nef

Electronic version

URL: <http://journals.openedition.org/philosophiascientiae/208>

DOI: 10.4000/philosophiascientiae.208

ISSN: 1775-4283

Publisher

Éditions Kimé

Printed version

Date of publication: 1 April 2008

Number of pages: 77-91

ISSN: 1281-2463

Electronic reference

Frédéric Nef, "Which Variety of Realism? Some Asseverations on the Dependence of Abstracta upon Concreta", *Philosophia Scientiæ* [Online], 12-1 | 2008, Online since 01 April 2011, connection on 16 January 2021. URL: <http://journals.openedition.org/philosophiascientiae/208> ; DOI: <https://doi.org/10.4000/philosophiascientiae.208>

Tous droits réservés

Which Variety of Realism? Some Asseverations on the Dependence of Abstracta upon Concreta

Frédéric Nef

EHESS

Institut Jean-Nicod (CNRS-EHESS-ENS)

Résumé : La critique du nihilisme par Lowe est soumise à une évaluation. Le nihilisme semble impliquer un engagement à l'existence d'entités abstraites et Lowe utilise le principe de dépendance (*PD*) — les abstraits dépendent des concrets — pour bloquer la référence à des entités abstraites : les nombres sont dits dépendre de concrets. On défendra l'idée que cette forme de fictionnalisme n'est pas innocente et que nous devons sérieusement envisager l'alternative que constitue le platonisme. On défendra une forme de platonisme, le platonisme particularisé. En conclusion on proposera de renoncer au *PD*.

Abstract: Lowe's criticism of nihilism is discussed. Nihilism seems to involve a commitment to abstract entities and Lowe used recently the Dependence Principle (*DP*) — abstracta depend upon concreta — in order to block reference to abstract entities: numbers are said to depend upon concreta. It will be argued that this form of arithmetical fictionalism is not harmless and that we have to evaluate the respective coast of the Platonist alternative. I will defend a form a particularized Platonism. In conclusion it will appear that we can give up the *DP*.

Introduction

Could there be a different world from ours? Could there be a reality with a radically different structure, *e.g.*, without events? Could there be only abstract things, like numbers? Could there be absolutely nothing? These questions belong to metaphysics, the core of philosophy; they systematically relate to each other. To be a realist, or an antirealist, and to belong to one sort or another inside one of these two persuasions

asks one to respond to these questions. Realism does not imply a strong belief in the necessity of our world, as it is, nor a strong disbelief in the existence of an ontological structure of the world, which we can at least partly apprehend through perception, language and science.

What is called metaphysical or ontological nihilism¹ is always opposed to realism. I want nonetheless to defend the view that there exists a harmless form of nihilism compatible with realism, because in fact what is bad in nihilism is a strong form of fictionalism asserting that everything is fictional, *viz.* all truthmakers are mere fictions and that therefore everything said or written is in fact pretended, false. J. Lowe thought that even a moderate form of nihilism (what I call “harmless nihilism”) is a threat to realism and proposes again and again an argument against it, based on an ontological Principle of Dependence, saying that there is no abstractum which does not depend upon a concretum.

I will argue that this principle has in fact hidden fictionalist consequences. Usually metaphysicians defending this principle say that to give it up is to endorse Platonism. I will explore the consequences of this annulment of the principle and I will argue that Platonism is much less detrimental than fictionalism concerning mathematical objects, and therefore that it is reasonable to give up the Dependence Principle (*DP*). In that case one objection could be that endorsing even a moderate form of Platonism (that there are genuine abstract objects) implies accepting too strong a case for universalism. I will give reasons rather than sketching out an argument in order to show that the very idea saying that reality is fundamentally particular is compatible with the form of Platonism I am ready to endorse.

My final proposal will be then both to particularize Platonism and to relax possibilism. In many respects I will stand clear off immanent realism, and probably one of the reasons is the weight I give to the ontology of abstract objects, with, at the first rank, mathematical objects and structures. An important reason, among several others, being that in the interplay between singularity and regularity, I am more baffled by the first and therefore, ready to make some concessions to universalism in order to explain the deep ontological singularity of everything constitutive of our world.

The main question in the modal realism debate is about possible worlds: are they concrete, abstract or empty? Modal realists call them concrete, ersatzists call them abstract and fictionalists call them empty.

---

¹I shall use only that sense of ‘nihilism’ and never the other sense, forged by Nietzsche and Dostoevski.

I will not discuss how fictionalism entails nihilism. I assume this entailment, without explaining it. I propose to give an argument against nihilism and to show that this argument is also in favor of realism. Before giving this argument, I have to recall what sense is given to the concept of nihilism. I will propose a distinction between two types of nihilism.

Nihilism affirms that there are no concreta. We currently distinguish three types of entities: concreta, abstracta, ficta. They are defined in the following manner:

- 1) x is a concretum iff x is spatiotemporal and x is endowed with a causal potential.
- 2) x is an abstractum iff x is non spatiotemporal and is deprived of causal potential
- 3) x is a fictum iff x is neither a concretum, nor an abstractum

This categorization is not indexical, whereas the distinction between possible and actual is indexical. Therefore the distinction between *possibilia* and *realia* is also indexical. Abstracta are neither *possibilia*, nor *realia*. Metaphysical nihilism is therefore defined as:

The set of possible worlds could have contained only abstract objects. There could have been only abstracta, sets and mathematical structures.

Ontological nihilism is defined as:

There could have been absolutely nothing, there could have been no possible world.

In [Lihoreau & Nef 2007] we have discussed ontological nihilism and we have given an argument against it, saying that it is necessary that there is something, that it is impossible that there is nothing. This argument is founded on the impossibility of an empty world. I will reformulate this argument:

- a) the property of self-identity must exist in every possible world.
- b) if there is an empty world, its elements must be self-identical (by a)
- c) an empty world is an empty set

- d) an empty set is composed of an element non identical to itself, z (by b,c) i.e. $\emptyset = \{z \neq z\}$
- e) There is no empty possible world (in virtue of b and d)

Statement (c) is based on a principle: if a is an expression like “ e is a set of F ”, then e is a set. For example a set of chairs is a set. It is somewhat similar to the distinction between pure and impure sets, between “sets” and “sets of F ”. It is only somewhat similar, because a pure set is also a set of F , but considered as a set, not as an extension of the set. This distinction is important, because metaphysical nihilism is in fact the negation of the existence of impure sets. Statement (e) cries out for clarification of what is an empty set. As there is no element non-identical to itself, the empty set does not contain any element.

This argument is problematical in many regards. It is not clear accepting statement (d) as equivalent to the definition “an empty set is a set containing no element”. What is not clear is deciding that the empty set disobeys the self-identity principle. This relative obscurity has led J. Lowe to introduce a Dependence Argument applied to abstracta and concreta. Lowe says that if there are abstracta, there are concreta: all abstracta are founded at least ultimately on concreta. This argument has been discussed by Rodriguez Pereyra and defended by its author (cf. Lowe 1998, 2005). This argument is connected to our argument: the empty set is as a pure set, an abstractum, but it must be a set of something. Therefore, there cannot be an empty set. Lowe reduces in fact the empty set to a fiction, when he says that the empty set does not exist. His dependence argument is reinforced by a foundation principle: according to him, a set must be founded — there cannot be ad infinitum set of sets, ad infinitum hierarchy of sets. There must be a foundation stopping the dependence process. In the same way universals have to be founded on particulars instantiating them.

Ontological dependence of abstracta relative to concreta is implied by a principle of instantiation of universals: if there were not instantiated universals, there would exist abstracta, *viz.* universals, which do not depend on concreta, *viz.* particulars. The line of argument is the following: if the Platonism of universals were true, then the principle of necessary instantiation of universals, would be not valid and if this principle were not valid, then there would be no necessary dependence of abstracta on concreta.

The eventual admission of abstract objects is here perhaps the most important ontological decision. The choice between immanent realism

and Platonism is derivative in relation to this eventual admission. To be or not to be a realist, to be a realist of such or such obedience depends on the conception we have of abstract objects. Abstract objects are of several types: numbers, and more generally mathematical objects, properties, propositions. For the moment we can leave aside numbers. Realists consider properties as abstract objects. Properties are of two types: universals (or general properties) and tropes (or individual properties). We know that tropes are abstract particulars. Particularism possesses the advantage compared to immanent realism of avoiding the opaque and abstruse mechanism of instantiating abstract objects into concrete ones. A particularist considers a concretum as a collection of abstracta, which is much easier to grasp, even if it is perhaps more difficult to assent.

Two questions now: Is ontological particularism compatible with Platonism? Does ontological particularism imply a form of fictionalism? I will defend the view that particularism and Platonism are compatible and that particularism implies an harmless form of weak fictionalism, without undermining authentic realism. If I succeed in showing that it is true, I will be successful in demonstrating that metaphysical nihilism is not a serious threat against realism.

1 The Elements of the Problem

In a recent paper, “Against metaphysical Nihilism — Again”, Jonathan Lowe upholds immanentist realism against metaphysical nihilism. He argues for the universality and necessity of the dependence principle (*DP*) saying that abstract objects depend upon concrete ones. He considers the case of numbers as paradigmatic abstract objects and affirms they obey to *DP*. This leads him to the conclusion in that zero and the empty set are fictions, which in turn implies that numbers do not exist in the true sense of “exist”.

I do not want to discuss the relevance and the weight of the concessions we are ready to endorse towards fictionalism. This would lead us probably to wonder if fictionalism, like realism, is modular or not. But, anyway, I see in that concession towards fictionalism something that concerns the very reality of numbers, an important piece in the ontology of quantities. According to Frege and Lowe, numbers are properties of concepts. Lowe declares himself a Fregean, for he considers numbers as formal properties, like identity and existence. Zero is a property of the concept “non identical to itself”. Nothing is non identical to itself and

therefore the extension of this concept is empty. The empty set is the set that contains zero members. Zero plays an important role in the construction of numbers, as the empty set in set theory. For every set E , $E = (E, \emptyset)$. To consider that zero and the empty set are fictions could bring back towards a conception of numbers as concrete properties of collections — “3” is then the property of the concrete collection of three flowers I have picked. In that conception an empty set is not a set, because to be a set is to join under a concept a plurality of things. I will not discuss the problems linked to a fictionalist account of numbers and sets. I observe only that this concession towards fictionalism lets me doubt about *DP*’s universality and wonder if it is not possible to do without it.

To keep *DP* has obviously an epistemic cost: more or less to give up Fregean conception of numbers. To give up *DP*’s universality has a, ontological cost: to admit in our ontology non-instantiated universals. However, from an epistemic point of view, Platonist realism towards numbers is not deprived of several advantages over immanent realism, as soon as we disregard natural numbers and turn our attention towards rational and real ones.

In order to argue for a non-universal application of *DP*, I shall have to determine consequences of this qualification. Among the consequences figures the possibility to be led to accept a world with only abstract objects, what is commonly dubbed “metaphysical nihilism”. I shall retain the traditional distinction between ontological and metaphysical nihilism, the first one asserting that it is possible that there is nothing, or that there could have been nothing. I shall make an additional distinction between weak and strong version of fictionalism and two main forms of nihilism, in order to be very accurate about the relation connecting fictionalism and nihilism. Radical fictionalism says that everything is false, that therefore there is nothing, and as it is obviously a danger for realism, I will have to decide if Platonism does or does not lead to this extreme form of fictionalism. We may see some strong analogy between the aforementioned discussion concerning numbers and the particularly heated debate between realism and fictionalism in the metaphysics of modalities. What are possible worlds? Are they either abstract or concrete? Do empty possible worlds exist? We call usually modal realists people saying that possible worlds are concrete and ersatzist or nihilist those extensionalist philosophers who proclaim that they are in fact abstract. Fictionalists would say they are neither abstract nor concrete.

A brief remark about the opposition between fictionalism and modal realism: The modal realist interprets typically a sentence like “it is pos-

sible that p ” in the following manner: “in w , p ” where w in the operator “in w ” represents a possible world and “in w ” as a whole is an existential quantifier on worlds. Fictionalists interpret this very same utterance, “in w , p ”, in a different manner: w is an expression of fiction, such that “in w , p ” means “according to the fiction w , p ”. p is a belief, or a sentence, not a proposition, because a proposition is an abstract object — it is a concrete object, either psychological or linguistic. According to the modal realist this utterance means: “there is at least a possible world, w , which is concrete and existent, in which it is true that p ”, where w is a world variable, whereas the fictionalist considers “in w ” as an operator moving the truth conditions of p , w having no special sense outside the expression “in w ”, which is an abbreviation for “in a fiction called a world w ”. Moreover, if fictionalism does not imply nihilism, it is completely contradictory with modal realism, which denies the possibility of an empty possible world, in so far as David Lewis conceives of possible worlds as mereological sums.

J. Lowe’s Argument Against Nihilism : the Dependence Principle

J. Lowe’s argument of dependence stipulates that if there are abstracta, there are concreta too, because abstracta depend upon concreta. This argument has some connection with the one we have discussed. The empty set is an abstract entity as far it is a set, but it must be a set of something, and in that case $F = 0$. Therefore there cannot be an empty set — Lowe complains that the empty set is a ‘reified fiction’. Lowe’s argument implies then both to use *DP* and to reject the existence of empty set, reduced to a fictional status. The *DP* is reinforced by a principle of foundation. A set must be founded and there cannot be *ad infinitum* a set of sets; at a certain point there must be a foundation of the elements. This implies that a universal must be ultimately founded upon particulars which are instantiating it.

DP as we have seen implies a principle of necessary instantiation of universals: if there are non-instantiated universals, there could be abstracta, namely universals that would not depend upon concreta, namely occurring particulars. Lowe’s argument is then the following: if Platonism of universals is true, then the principle of necessary instantiation of universals is not valid any more and if this principle is not valid, then there is not any more a necessary dependence of abstracta upon concreta because universals are abstract. If there is not this necessary dependence, then it could be possible that there are only abstract ob-

jects. In short, according to Lowe, Platonism does imply the possibility of metaphysical nihilism. However the inverse is obviously not true and therefore Platonism is not equivalent to metaphysical nihilism.

Abstract Objects

There are several sorts of abstract objects: numbers, more generally mathematical objects and structures, properties (if any), propositions. Lowe is obliged to assert that numbers do not exist. The Fregean conception of numbers as abstract objects, that is to say types of properties, seems to be a rigorous point of departure. Lowe's position combines therefore an arithmetical fictionalism and an immanent realism of properties. He rejects the existence of zero and of the empty set; he considers numbers are different from concrete objects and affirms they do not exist strictly speaking, for he defines them as formal concepts, not as objects. According to Lowe arithmetical truths are therefore truths without truthmakers. Realists usually consider properties and monadic or non-monadic relations are abstract objects. In general anti-realists reduce them to predicates (for difficulties of this reduction, cf. [Nef 2006]). Properties are of two sorts: universals, or general properties and individual properties, possibly tropes or abstract particulars. This phrase, "abstract particular", is in fact ambiguous. "*A* is abstract relative to *B*" means: "*A* is separated from *B* by a mental act and *A* is founded upon *B*". For example a blue sheet of paper exhibits this particular color as an accident and depending moment. It is an aspect of the sheet of paper abstracted, separated by the mind, but that in fact depends upon things and therefore cannot exist without it.

Particularism

Particularism is in some respect superior to immanent realism, in so far as it does not consider ontological particularity as the product of an instantiation process. This instantiation of abstract universals in concrete particulars, conceived of as ontologically grounded, is mysterious. The resemblance relation, even if it is also primitive is less mysterious than the one of instantiation. From a particularist point of view a concrete object is a collection of abstract objects. From a realist point of view, I adopt here, the resemblance relation is founded upon a resemblance of essences relative to collections of concrete objects.

Our Argument in Favor of Particularized Platonism

The argument is an argument of compatibility and in that sense it is not a very strong one. It says that it is not contradictory to admit non-instantiated universals and abstract particulars if we wish to confute only ontological nihilism and if we are neutral towards metaphysical nihilism. It says only that there is nothing concrete, but if we have non-instantiated universals and abstract particulars, there is nothing concrete and then the aforementioned compatibility is proved. Particularized Platonism does not imply radical fictionalism. In that case the universe is composed with abstract objects, either non-instantiated universals or abstract particulars. It is non-contradictory to admit non-instantiated universals and abstract particulars, which do not depend upon concreta.

The conclusion may seem paradoxical, because Platonism in general implies that there could have been no particular and not only no concrete thing. “Particularized Platonism” as we could call it, is a Platonism reduced to the possibility that there is no spatiotemporal abstractum, but stipulating at the same time that there are indeed abstract particulars. This Platonism is therefore compatible with the weak metaphysical nihilism.

Here two problems claim our attention. In the first place is this ontological particularism really compatible with Platonism, or this choice of a particularist option independent with the choice between immanent realism and Platonism? In the second place does ontological particularism imply a form of fictionalism or contingentism in the sense we have defined concerning the different types of nihilism? I shall support the view that Platonism and particularism are in fact compatible and that particularism implies indeed weak fictionalism. This view, I shall maintain is in no way contradictory with genuine realism. If I would be able to give some convincing reasons to think in that way, I would succeed to show that moderate metaphysical nihilism is not a threat for the realism.

2 Compatibility Relations between Ontologies

Let us outline our ontological background. I shall contemplate the compatibility relations between these four ontologies, immanent realism, modal realism, particularized Platonism and nihilism. Modal realism affirms there are concrete possible worlds, particularized Platonism that

there are non-instantiated abstract universals and abstract particulars, nihilism that there could be only abstract objects.

There are first-order abstract objects; *i.e.*, abstract particulars and concrete objects are composed with abstract particulars. There are also second-order abstract objects, *i.e.* resemblance classes of first-order particulars. The Aristotelian intuition of the basic character of particulars is thereby confirmed. But these abstract particulars may not constitute concrete objects and in that case the second-order abstract objects do not depend upon concrete objects. We have here to stress that the definition of the term “abstract” used for example in the phrase “abstract particular” is not equivalent to the one given by immanent realism, which identifies something abstract with something abstracted from a concrete particular by an intellectual operation of separation. For example the mass “*m*” of a body “*c*” is an abstract particular according to an immanentist realist, because *m* is separated from *c* by the mind. An immanent realist does not accept the radical particularist thesis that affirms that *m* is an ultimate ontological constituent of *c*. In that case the act of separation itself is founded upon the very ontological structure of concrete particular. In that respect is the Platonist point of view close to the particularist stance; it does not accept abstract objects which are not necessarily separated aspects of reality by an empirical process of abstraction, it has a conception of abstracts hospitable to abstract particulars, even if Platonism in general admits only universal abstracta.

Objections Against Immanent Realism

This accounts for the non-actualized dispositional properties. These properties can be actualized in a world different of the actual world. In that case second-order objects relative to these properties do exist, but do not depend upon anything in our world. For example it could be possible that no man is good — in the case of a general corruption of moral intuition —, but however this dispositional property of goodness could be actualized in a possible world in which conditions are not similar — if the corruption of moral intuition has not taken place, or is not universal. In that case therefore the Platonist intuition that there exists a non-instantiated abstract universal is correct. It is also correct if there does exist a world where there exists only even collections of concrete objects. Let us figure out a Borges’ world in which reigns the superstition of oddness and in which are annihilated all individuals whose presence in a collection means that this collection becomes even. In that world in which exist only even collections of concrete objects — let us call

that world an even world — the odd numbers are not depending upon concrete objects, or classes of concrete objects, but still do exist at least as sums of even numbers (for example $7 + 3 = 10$). It would be still worse if a world would not contain collections of objects whose cardinal is identical to prime numbers, as we know the important role of them in the theory of numbers. Our line of argument is then the following: laws of arithmetic are necessary and therefore it is contingent that concrete objects do or do not instantiate such or such sort of property and then *DP* is susceptible of being breached, there can be worlds only filled with abstract objects.

In a world in which all collections are even ones it is possible that there is an odd number of even collections. There is another range of perhaps more convincing counter-examples to *DP*: irrational numbers, like π , imaginary numbers like $\sqrt{-1}$, transfinite numbers as $\aleph_0$ . . . Upon what depends $\sqrt{-1}$, π or $\aleph_0$? Upon what depends -1 or $1/3$? This kind of argument goes the opposite way. Large cardinals cannot depend upon concrete objects or collections of concrete objects: upon which collection would depend the number $\aleph_0$, the smallest cardinal? To consider numbers as fictions is coherent, even more than to consider them as abstract objects depending upon concrete objects. But this respectable opinion is nonetheless an important concession towards fictionalism. Numbers and sets possess strong connections and to fictionalize numbers would probably entail a fictionalization of sets. Would it be possible then to assert the existence of depending universals non-equivalent to sets? Or more precisely: if sets are extensions of universals (for example the set of green things is the extension of the universal “green”) is it not disturbing to think that these extensions are fictions? Extensions of universals are sets; would it be possible to preserve then universals from radical fictionalization?

In Defense of Platonism

The Platonist alternative seems then to be more enticing. The objection we often addressed to Platonism not to feel concerned by analysis of ontological structure of particulars (artifacts, organisms and even persons) is destroyed if we are able to show that *DP* is not necessary and anyway compatible with particularism, if we want to retain it. The question now becomes: how to conciliate these two affirmations, first that there exists abstract universal objects and second that concrete objects are composed of particular abstract objects? This difficulty is as considerable as the one linked to immanent realism, difficulty we have described a moment

ago, but it possesses an advantage over immanent realism: to surrender what is possible to cede and not to give up what is reasonable not to cede. We accept there could have been only abstract objects and in the same time we maintain there could not have been absolutely nothing. The particularized Platonism is incompatible with ontological nihilism, if we give up the necessarily universal existential dependence of the abstract upon the concrete. However, since ontological nihilism — and not metaphysical nihilism — is a threat towards realism, in attributing to what there is an absolute contingency, it is not completely unthinkable to make the choice of a reformed Platonism.

About Modal Realism

According to Lewis modal realism is the doctrine saying that there can exist concrete possible worlds. We distinguish commonly genuine modal realism from actualism. Modal realism says that there are concrete possible worlds whereas actualism considers only abstract possible worlds, for example sets of propositions, concepts... (Cf. [Divers 2002, 229]). This cautious formulation of modal realism aims to not exclude a possibility that possible worlds would be composed of abstract objects. According to the definition of metaphysical nihilism given above, modal realism is not a metaphysical nihilism, for the latter says that all possible worlds are composed with abstracta, even our actual world. In order to transform *stricto sensu* Lewisian modal realism into a metaphysical nihilism, we should have to extend in all worlds an eventual composition with abstracta alone.

Modal realism seems then at first sight compatible with Platonism, in so far as it does not *a priori* exclude that abstracta do depend upon concreta. D. Lewis moreover seems to admit that tropes are genuine abstracta, on the same footing as universals and equivalence classes thereof. We have defined abstracta as non-spatiotemporal, but the tropes appear at first sight at least to be spatiotemporal. Apparently the mass of a body has spatiotemporal coordinates. Socrates' wisdom is not spatiotemporal, it is in virtue of its moral character, not in virtue of its particularity. Is it however certain that the man of a body possess spatiotemporal coordinates? A body fills a piece of space-time and this is because it fills this piece of space-time that he possesses its mass. It is not only for this reason, but also for that reason, in virtue of the relations between the mass and the geometry of space-time. But mass as such is not spatiotemporal: in its definition we have no spatiotemporal coordinates, even if these coordinates of the body play a role in its determination. The volume of a gas is a function of its pressure, but it

does not mean that the pressure has a volume. It seems more difficult to sustain that kind of argument concerning an event trope like Marilyn Monroe's smile. However on further consideration shows that spatiotemporal determination is not self-evident. Which region, or which field does this smile fill? From when to when is this smile occurring? A smile is not comparable to the trajectory of a solid along an axis, or the dilatation of a metal, caused by heat. It is a singular and complex event, which is not assignable to a face in a certain occasion, but the mass did not inherit its spatiotemporal characters from the weighty body, even without, having by it spatiotemporal coordinates. The smile inherits also its coordinates through the face it is depending upon.

Towards a Compatibilist Ontology: Particularized Platonism and Modal Realism

The combination of Platonism and particularism that I recommend, for reasons given above, is perhaps not adverse to modal realism. Modal realism entails distinct affirmations: there are spatiotemporally disconnected worlds (otherwise we would have only a Big World), each possible world is actual relatively to itself. In order to give a qualified answer to this question, it is useful to recall D. Lewis' views about *concreta* and *abstracta*.

Modal realism puts on the same footing our world and possible worlds. D. Lewis affirms possible worlds are concrete like ours, that is to say composed with *concreta*. However, the possible worlds do not have necessarily the same ontological structure as ours. We may figure out abstract possible worlds in which there were only no conglomerate of tropes and therefore no concrete particulars. As the ontology of abstract particulars is not a fancy, it is conceivable and therefore possible to admit abstract worlds. If orphaned tropes belong to the equivalence classes of properties, these classes themselves would be abstract ones and this world composed only with *abstracta* would be an abstract world. There is then apparently a difficulty to characterize Lewisian possible worlds as *concreta*, to consider concreteness as an intrinsic property of possible worlds. It is true that a Lewisian possible world may be a *concretum*, but it is not necessary and the difference between actualists and modal realists cannot be identified with the difference between concrete and abstract possible worlds.

The ontology of modal realism and the particularized Platonism do not then conflict. The problematical distinction between abstractness and concreteness is not a cause of conflict. It is possible that abstract

possible worlds exist according to modal realists, as to Platonists. It seems that modal realism is not strongly committed towards ontological *DP*. The basic ontology of modal realism — tropes, properties, and universals — is compatible with Platonism. D. Lewis would apparently prefer to shun non-instantiated universals, but he has apparently no decisive argument against their existence. Like Platonists, he considers properties are abstract beings. The truthful objection against the bringing together of modal realism and particularized Platonism does not result from an incompatibility of the two doctrines. It results from the neutrality of modal realism towards fictionalism, a doctrine deeply opposed to Platonism, either particularist or not. We are faced to two forms of fictionalism. The first form is the moderate one. According to this version concreta are in fact abstracta and then appear to be fictions, for concreteness is purely fictional. The second form is the radical one. According to this version it is not necessary that there is something; perhaps there is absolutely nothing. Being or beingness is purely fictional. Modal realism is incompatible with strong fictionalism: it is necessary that there are worlds for there is something in our world and counterpart relations bring about something in other worlds, without to say anything about aliens. But modal realism is compatible with weak fictionalism: in a certain way we may affirm concreta are made with abstracta, if properties are indeed abstract and if the worlds are sets or collections of properties.

Conclusion

It seems to me that immanentist realism has nothing to gain in the defense of *DP* at any cost. If for a similar epistemic cost we would have a choice between immanent realism and Platonism, it would be legitimate to choose the first, because the ontological cost is lower.

There is something offensive in fictionalism towards numbers: our intellectual intuition, both epistemic and metaphysical, is choked and it is not surprising that radical nominalists generally sustain this fictionalism, as long as they are coherent.

We may conclude there is not from one side a metaphysical respectability consisting to postulate or presuppose the existence of concrete particulars, on the basis of which mind would by separation processes create abstracta and from another side an ontological extravaganza, admitting beings as contradictory as abstract particulars, non-instantiated universals or existing possibilia.

References

BALDWIN, T.

1996 There might be nothing, *Analysis*, 56.4, 231–238.

COGGINS, G.

2003 World and Object: Metaphysical Nihilism and Three Accounts of Worlds, *Proceedings of the Aristotelian Society*, 103, 353–60.

DIVERS, J.

2002 *Possible Worlds*, Londres: Routledge Kegan.

LEWIS, D.

1986 *The Plurality of Worlds*, Oxford: Blackwell.

LOWE, E. J.

1998 *The Possibility of Metaphysics*, Oxford: Oxford University Press.

2005 Against metaphysical nihilism — again (Modality Workshop, University of St Andrews, 2–3 December 2005).

NEF, F.

2006 *Les propriétés des choses*, Paris : Vrin.

NEF, F. & LIHOREAU, F.

2007 Il n'y a pas de monde vide, in Wolff, F. (éd.) *Pourquoi y a-t-il quelque chose plutôt que rien ?*, Paris : PUF, 157–186.

PASAU, A.

2002 Why the subtraction argument does not add up, *Analysis*, 62 (1), 73–75.

RODRIGUEZ-PEREYRA, G.

1997 There might be nothing: the subtraction argument improved, *Analysis*, 57 (3), 159–166.

2000 Lowe's argument against nihilism, *Analysis*, 60 (4), 335–340.

2002 Metaphysical nihilism defended: reply to Lowe and Pasau, *Analysis*, 62 (2), 172–180.