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## Goodman's Many Worlds

Alexandre Declos

In this paper, I examine Nelson Goodman's pluriworldism, understood as the claim that there exists a plurality of actual worlds. This proposal has generally been quickly dismissed in the philosophical literature. I argue that we ought to take it more seriously. As I show, many of the prima facie objections to pluriworldism may receive straightforward answers. I also examine in detail Goodman's argument for the conclusion that there are many worlds and attempt to show how it might be supported. Eventually, I discuss some underexplored challenges to pluriworldism.

## Goodman's Many Worlds

## Alexandre Declos

## 1. Introduction

Nelson Goodman's later philosophy is dedicated, for the most part, to a defence of "irrealism". ${ }^{1}$ The latter consists in the conjunction of two claims: first, that there exists a plurality of actual worlds; and second, that these worlds are "made" or "constructed" through the cognitive and symbolic activities of human beings. I will respectively call these two assumptions pluriworldism and worldmaking. Although pluriworldism and worldmaking are entwined in Goodman's writings, it should be noted that they are, at least in principle, logically independent. Many admit that we somehow "make the world", but object to the pluralistic claim that there is more than one world-this is indeed the standard "constructivist" stance (Hacking 1999). Conversely, one could in theory accept that there exist several worlds while maintaining that those are not made but rather found or "readymade" (see Scheffler 2000).

Once conjoined, pluriworldism and worldmaking result in the radical claim that we inhabit many worlds of our own making. This is indeed what irrealism intends to establish. Many, however, have regarded this contention as a far-fetched and very implausible form of antirealism or relativism. ${ }^{2}$ Most of these criticisms have been directed towards the worldmaking thesis,

[^0]according to which we-human beings-would be the makers of reality. While a number of sound objections have been made to this particular claim, comparatively little has been said until now about Goodman's suggestion that there are many actual worlds. The reason is perhaps that this idea seems too incredible from the outset. Yet, it would be a mistake to think that pluriworldism can be dismissed without careful discussion. As I will show, Goodman wasn't without answers to the most obvious objections to the notion of a plurality of worlds. He also proposed a technical and largely underappreciated argument to defend pluriworldism.

The general purpose of this paper, then, will be to clarify the meaning of Goodman's pluriworldism and the argument that warrants this view, before showing what are its possible drawbacks and limitations. After a number of preliminary clarifications (Section 2), I will examine certain common objections to the idea of a plurality of actual worlds (Section 3) before considering some potential replies (Section 4). Goodman's argument for pluriworldism will then be exposed in detail (Section 5). After warning against a possible deflationary reading of Goodman's view (Section 6), I eventually consider several underexplored challenges to pluriworldism, along with possible rejoinders (Section 7).

## 2. Preliminary Remarks

### 2.1. What pluriworldism isn't

When Nelson Goodman wrote Ways of Worldmaking (WW) in 1978, it was altogether common to use "world" in a plural fashion. The generalized use of modal logic in metaphysics had given a second life to the Leibnizian trope of a multiplicity of possible worlds, understood either as real but isolated spatio-temporal wholes (à la David Lewis), as maximally consistent sets of propositions, or in other ways still. The idea of a plurality of worlds
had also enjoyed, around the same time, a certain popularity in the philosophy of science, especially in the wake of Kuhn's suggestion that "proponents of competing paradigms practice their trades in different worlds" (Kuhn 1970, 121). For Kuhn, individuals working within different scientific paradigms perceive, understand, and organize the phenomena in radically diverging manners, to the extent that it could be said that they live in quite different worlds. None of these pluralistic uses of "world", however, correspond to what Goodman envisioned with his own irrealism. ${ }^{3}$ First of all, the many worlds of pluriworldism are certainly not counterfactual scenarios or mere possibilia. Goodman, indeed, had championed in his previous works a strict extensionalism, avowedly hostile to any non-reductionist treatment of modality (Goodman 1983, 56-57). According to him, everything that exists is actual, so that discourse on possible worlds is prohibited from the outset: "we are not speaking in terms of multiple possible alternatives to a single actual world but of multiple actual worlds" (WW 2). Given his commitment to a form of actualism, it is clear that Goodman's talk of many worlds cannot be given a modal interpretation. Some might wonder, however, what distinguishes pluriworldism from David Lewis's modal realism, which also accepts many actual worlds besides ours; each of them being so indexically, i.e., relative to its own perspective (Lewis 1973, 86). According to Lewis, these many actual worlds are spatiotemporally discrete and causally isolated, so that they do not overlap in any sort of way. But this is certainly not Goodman's view. The latter, for a start, suggests that worlds should be taken as actual simpliciter and not merely indexically. Secondly, while Goodman reckons that worlds are not part of a more com-

[^1]prehensive structure (MM 32), he considers that we do inhabit several of them. The many worlds of pluriworldism, that is, are not causally inaccessible and discrete as Lewis's are. For Goodman, we can and do, literally, "travel" from one world to another. The parallelism of Goodman's view with Kuhn's also falls short. For a start, the former reckons that worlds are constituted not only by scientific theories, but also, by the arts and yet other types of cognitive pursuits ( $W W$ 103). Secondly, pluriworldism doesn't really bother with "ancient worlds" (WW 97). Contrary to Kuhn, that is, Goodman doesn't provide a socio-historical inquiry of representations of the world, choosing instead to focus on the various (ahistorical) ways by which worlds can be constructed ( $W^{-17}$ ). Lastly, Goodman and Kuhn simply claim different things. The latter seems to endorse a diachronic view on the plurality of worlds, whose model would roughly be the following: there exists a world $W_{1}$ which corresponds to paradigm $P_{1}$ at time $t$, a world $W_{2}$ corresponding to paradigm $P_{2}$ at $t_{1}$, etc. Goodman, for his part, develops a synchronic model for the plurality of worlds. At one and the same time $t$, there would exist several actual worlds $W_{1}, W_{2}, \ldots, W_{n}$, with $n$ being the total number of conflicting true versions of reality (more on this below).

### 2.2. Worlds and versions

Pluriworldism, and more generally, irrealism, critically rely on the concept of "version". Goodman often conflates talk of worlds and of versions, stating that "making right versions is to make worlds" (MM 42). Although this equivocation is potentially confusing, as I will show shortly, we may for now understand pluriworldism as the contention that there are many different "worldversions" of our own making. But what is, exactly, a version? Goodman uses this term to refer to various types of descriptions, representations, or depictions of reality. Versions, he contends, can be made with "words, numerals, pictures, sounds, or other
sorts of symbols in any type of medium" (WW 94). Some examples might be useful here. Among what Goodman acknowledges as versions (or worlds), we find Ptolemy's geocentric system and Copernicus' heliocentric model (WW 93), Whitehead's definition of geometrical points as classes of nesting volumes (WW 9), paintings by Van Gogh or Canaletto ( $\mathrm{NW}_{3}$ ), the metaphysical theories of several pre-Socratic philosophers (WW 97-99) and the constructional systems Goodman had himself devised in his earlier works (MM 43). It may even be thought that irrealism is itself a version-perhaps a "meta-version" or "a world of worlds" (SM 143). The range of candidate world-versions, thus, is assuredly broad. What all versions have in common is that they are made up of symbols (in Goodman's broad sense which covers words, images, numerals, sounds, etc.) and that they fulfil various referential roles, therefore "standing" for certain things in reality. A version, then, can minimally be understood as an articulated description of a representation of reality.

These few clarifications made, we may offer a more precise characterization of Goodman's view. Granted that "talk of worlds and talk of right versions are often interchangeable" (SM 144), pluriworldism amounts to the idea that there exist, for any given time, different world-versions, which can be understood as so many distinct actual worlds that we would inhabit. As Cohnitz and Rossberg $(2006,216)$ sum it up, pluriworldism has it that "we constantly travel from one world to the next when we choose another version to describe Reality". Knowing how many of these worlds there are, how they are individuated, which versions do make worlds and at which conditions, are issues to be clarified later on.

## 3. Issues With PluriworIdism

The minimal characterization of pluriworldism just offered doesn't make it more intuitive or acceptable. One might wonder what it even means to say that there are many actual worlds; or
that different versions may be treated as different worlds. Goodman's view, as I will show now, is vulnerable to several prima facie objections, that I will attempt to answer later on.

### 3.1. The logical objection

It is customary, in metaphysics, to define the world as a maximally inclusive whole, such that all the other entities (and totalities) are part of it. The world, then, is thought of as being the maximal mereological sum of every region of space-time, being perfectly exhaustive for that matter (Lewis 1986, 60). Anything that exists at any given time, under this assumption, would be either the world itself (which is an improper part of itself but a proper part of nothing else) or a part of the world. The issue is that, if we draw on this common characterization, Goodman's pluriworldism is logically flawed. There can only be, by definition, a single all-encompassing totality. If we conceive the world as being "all there exists", it is trivially false that there could be several actual worlds. No thing-and a fortiori no world-may be exterior to the world, if the latter is to be understood as an exhaustive totality. Granted that "a world cannot be a piece of something bigger" (MM32), it seems impossible that there exists more than one. As David Lewis noted (in another context): "if by definition 'the world' comprises all there is, then to speak as I do of things that are out of this world is tantamount to speaking of things that are outside of all there is-which is nonsense" (Lewis 1986, 99). Goodman, as a matter of fact, was aware of this issue, as he remarked that "'world' is all-inclusive, covers all there is. A world is a totality; there can be no multiplicity of totalities, no more than one all-inclusive whole" (MM 32). It is certainly this sort of objection which explains why so many have seen Goodman's talk of "many worlds" as a curious and ultimately misleading metaphor. ${ }^{4}$

[^2]
### 3.2. The ambiguity of pluriworldism

Another worry is that pluriworldism seems ambiguous, as Israel Scheffler argued at length in several papers (compiled in SM). According to him, Goodman permanently vacillates between two non-equivalent senses of the term "world". As he notes:
The term "world" is nowhere defined in the book [i.e., WW ] and an examination of the passages in which the term appears yields two conflicting interpretations: On the first, or versional, interpretation, a world is a true (or right) world-version and the pluralism defended simply rejects, and extends to versions generally, the Structure of Appearance doctrine that conflicting systematizations can be found for any prephilosophical subject matter. On the second, or objectual interpretation, a world is a realm of things (versions or non-versions) referred to or described by a right world-version. Pluralistic talk of worlds is here not simply talk of conflicting versions; "multiple actual worlds" is Goodman's watchword and he cautions us that it should not "be passed over as purely rhetorical".

> (Šcheffler 1996, 133)

Under a versional reading of irrealism, there exists several worlds in the sense that we possess many true but conflicting accounts of reality. Consider the fact that light can equally be described as corpuscular or wave-like. A versional reading of irrealism would imply that these two physical accounts-if indeed they are versions-embody different worlds. This is what is supposed to capture the monadic predicate "world-version" used by Scheffler. In this expression, the term "world" is "syncategorematic and non-referential, its position inaccessible to variables of quantification" (Scheffler 1996, 141 n. 2). Differently put, there wouldn't be a version on the one side, and its world on the other. True or right versions would simply be different worlds. Now, given the "objectual" understanding of irrealism, pluriworldism comes across much stronger. Worlds, in that case, are no longer identified with versions. They are what versions answer to (WW 94). Under this assumption, a world is the ontological realm which is referred to by the relevant version. In that case, the ex-
ample taken above takes on a different meaning. To the version which describes light in corpuscular terms would correspond a world $W_{1}$, in which light is composed of particles (i.e., photons). The other version, in which light is characterized as wave-like, answers to a world $W_{2}$, which does not contain any photons but electro-magnetic fields instead. These two versions would thus answer to different worlds in the sense that $W_{1}$ and $W_{2}$ simply do not have the same content, i.e., same furniture or inhabitants. In brief, the objectual reading of irrealism does not say that versions are worlds, but rather that they have worlds or answer to worlds. In that case, we should rather speak of versions of such and such worlds. These two interpretations, as Scheffler rightly insists (Scheffler 1996, 133-36), seem equally supported in Goodman's writings. Yet, they are clearly non-equivalent and are prima facie incompatible. ${ }^{5}$ The versional reading, which Scheffler deems to be the only defensible one, amounts to a form of epistemological pluralism: there would exist several adequate but conflicting accounts of reality. The objectual interpretation of irrealism, on the other hand, yields a strong form of ontological pluralism: the multiplicity of versions would entail the existence of whatever is referred to by these versions. In a nutshell, a second problem with Goodman's pluriworldism is that its nature and significance drastically differ depending on whether versions are identified with worlds. Thus, as long as the interrelation between worlds and versions has not been clarified, pluriworldism seems desperately ambiguous.

### 3.3. Pluriworldism and nihilism

A last issue must be mentioned. It seems possible, if we cautiously examine what Goodman says, to deny that he ever

[^3]claimed that there are several worlds. Indeed, he occasionally portrays his irrealism as a "nihilist" position, which simply consists in the denial that there exists something as "the World" (SM 204). Far from there being many worlds, there would be in fact no world at all: "while I stress the multiplicity of right worldversions, I by no means insist that there are many worlds-or indeed any" (WW 96, my emphasis). Things become even murkier when Goodman writes that the pluriworldist claim according to which there are many worlds amounts roughly to the same thing as the nihilist contention that there is none (MM 39). This, he proposes, would be "complementary conditional" assertions (SM 204). Such contentions seem ill-advised, as they directly undermine other passages where Goodman insists that his pluriworldism is by no means rhetorical (see, e.g., WW 110, MM 42). The issue, once again, is that it is simply not clear in which sense Goodman claims that there are many worlds, if any.

## 4. Replies

The previous issues, as long as they remain unanswered, obscure the significance and might even threaten the coherence of pluriworldism. Yet, I believe that Goodman gave indications regarding how each of these complaints should be answered. In what follows, I will propose to critically reconstruct the answers he made-or sometimes, the answers I think he could or should have made-to each of the aforementioned criticisms.

### 4.1. Reply to the logical objection

First, how might we answer the contention that pluriworldism is logically contradictory? I believe that the only way to escape this objection is to reply that Goodman gave to the concept of "world" a peculiar sense, distinct from its ordinary metaphysical use. Some precious help, here, comes from van Fraassen's distinction between the metaphysical sense of "world" (the idea of
an all-inclusive whole as was discussed above) and its schematic use (van Fraassen 1995). ${ }^{6}$ Schematically understood, "world" denotes a given ontological realm, rather than an encompassing totality. Historians speak of the "medieval world" in this sense. When they use this expression, they more or less determinately pick out a certain realm of things existing over a given period of time. The medieval world, they say, was inhabited by knights, serfs, clerics, and so on. But this contention, plainly, does not commit historians to the idea that the medieval world exhausts all there is. "World", in this context, does not purport to refer to an all-inclusive totality. Neither does it have to mirror exactly what medieval people thought that their world contained. ${ }^{7}$ Rather, it refers to what correct historical accounts say there was during the Middle Ages. This shows that "world" can be used in a way that is distinct from its ordinary metaphysical sense. In that case, the term becomes a schema to be interpreted or a blank to be contextually filled-in. As van Fraassen puts it, "world", schematically taken, is a "context-dependent term which indicates the domain of discourse of the sentence in which it occurs, on the occasion of utterance" (van Fraassen 1995, 153). I believe that irrealism indeed appeals to something akin to this schematic use of "world". The commonalities between Goodman's view and van Fraaseen's proposal are striking. First, Goodman also insists that "world" does not always refer to one

[^4]and the same thing. Were this the case, there would exist but one single and unchanging totality (i.e., "the World"), which is precisely what irrealism relentlessly targets. Second, Goodman holds, just as van Fraassen, that the reference of "world" cannot be determined absolutely, as if its extension was fixed independently of a given version (WW 2-3). Certainly, saying as much amounts to seeing "world" as a schematic term, which needs to be filled-in by a particular version in order to function referentially. Finally, irrealism characterizes worlds as being that to which versions "answer" (WW 94), an expression which cannot be understood otherwise than in referential terms-as Scheffler (1996, 135) complains. Goodman, just like van Fraassen, construes "world" as picking out a certain domain of discourse. Put in Quinean terms, we might say that a world is the ontology to which a version is committed (Dudau 2002, 145; Dutra 1999, 46; Küng 1993, 33). A world, under this assumption, is the class of things ranged over by the quantifiers of the corresponding version. After translating a version into quantificational language, we see what the values of the variables of its existential statements are. Thereby, we pick out the entities whose existence is required for the version to be true. Reading the ontological commitment of versions, for that matter, would allow us to say precisely what is the content or furniture of their corresponding worlds.

Still, one might maintain that none of the above answers the logical objection. Goodman's worlds, contrarily to van Fraassen's, are still understood as totalities: "'world' is allinclusive, covers all there is" (MM 32). Therefore, irrealism seems doomed to contradiction, as it countenances several actual worlds while denying that these could be combined such as to form a more comprehensive structure ( $M$ M 31-32). I beg to differ. It is possible, I contend, to solve the initial puzzle of a plurality of totalities, given the schematic sense of "world". To illustrate, let us take a true version $V_{1}$ and the world $W_{1}$ to which $V_{1}$ answers. Suppose that we possess an exhaustive inventory
of the ontological commitments of $V_{1}$. If that is so, everything that $W_{1}$ contains may be described with the help of $V_{1}$ : there is no entity, property, or relation existing in this world which isn't captured by the version. But then, from $V_{1}$ 's point of view, the ontology of $W_{1}$-what exists in this world-is indeed "all there is". According to $V_{1}$, nothing is exterior to $W_{1}$ and $W_{1}$ isn't itself a part of anything else. ${ }^{8}$ In brief, from $V_{1}$ 's standpoint, $W_{1}$ can be seen as an exhaustive totality: it contains everything that exists according to this version. But now, if Goodman is right in claiming that there are other true but conflicting versions, $V_{1}$ 's world $W_{1}$ cannot anymore be thought of as exhaustive. Indeed, suppose that we have another true version $V_{2}$ which describes a world $W_{2}$. If we admit that $V_{2}$ is true, irreducible to and incompatible with $V_{1}$, we will be ontologically committed to accepting a number of entities absent in $V_{1}$. Looking back, we may come to think that $W_{1}$ isn't, after all, "all there is". In other words, once we take a standpoint other than that of $V_{1}$, we cannot any longer claim that $W_{1}$ is enough to account for the totality of reality. I take it, then, that Goodman's notion of a multiplicity of allencompassing totalities isn't contradictory after all. What makes it defensible is the admission that exhaustiveness is indexical, i.e., necessarily confined to the viewpoint of a particular version. ${ }^{9}$ A given world is an all-inclusive whole as long as we consider the standpoint of the version which describes or refers to it; but this isn't so anymore when we consider another true version. Paradox arises only when we conflate the internal perspective of a

[^5]version and the standpoints of other versions (MM 32). If this is correct, there can indeed exist several exhaustive totalities, as long as we reckon that we do not adopt more than one worldversion at any given time. This is precisely what Goodman held, as he noted that we work with different versions at different times, this "judicious vacillation" (MM 32) between versions being a function of the context and of our interests. Goodman, in brief, may defend that a world is an all-inclusive whole, while maintaining that there exist several such worlds. Of course, this dialectical move is conditional on the existence of true conflicting versions-an assumption, as we will see, which is at the centre stage of the argument for pluriworldism.

### 4.2. Reply to Scheffler

Consider, now, Scheffler's complaint that pluriworldism is ambiguous. What we just said, I think, is enough to repel this worry. Indeed, Goodman simply does not endorse the versional view. If, as we said, a world is what a true version refers to, or alternatively, the ontology to which it is committed, the plurality of versions entails the plurality of worlds construed as ontological realms. This corresponds to the objectual reading of pluriworldism. There are still other ways to show that Goodman's pluriworldism must be understood objectually. For a start, versional irrealism would require simply identifying worlds and versions. But during his back and forth exchange with Scheffler, Goodman never admitted to endorsing such a view. In fact, he explicitly insisted on the difference between worlds and versions: "a right version and its world are different. A version saying that there is a star up there is not itself bright or far off, and the star is not made up of letters" (SM 144). To that extent, identifying worlds and versions would amount to conflating theories with whatever it is they refer to, a confusion that Goodman had previously warned against (Goodman 1960, 48). Another clue that irrealism must be understood objectually is that, were the versional reading true,

Goodman's worldmaking thesis would become trivial (Scheffler 1996, 137). Indeed, if worlds were versions, worldmaking would amount to version-making. But it is plain that we are the authors of the various theories, systems, and descriptions that we use to refer to reality. It is only if we admit that Goodman takes "world" in an objectual sense that the worldmaking thesis becomes substantial (and controversial); for then, it is the content of the worlds which is taken to be "made" by human beings. Thus, if pluriworldism only makes sense under an objectual reading, there is little reason to think that things are different regarding pluriworldism.

We should perhaps, however, do more justice to Scheffler's point. If irrealism needs to be construed objectually, how are we to explain the numerous passages where Goodman simply assimilates versions and worlds (e.g., WW 4, 7, 96; MM 49)? How could we understand in non-versional terms such contentions as "irrealism... sees the world melting into versions" (MM 29) or "the world [is] displaced by worlds that are but versions" (WW 7, my emphasis)? The answer is that irrealism, while refusing to identify versions and worlds, takes them to be necessarily conjoined. Throughout his works, Goodman has argued that it is desperately vain to try and sort out "the world" on the one side, and its descriptions and representations on the other: "no firm line can be drawn between world-features that are discoursedependent and those that are not" (SM 144). While this is certainly a controversial claim, what matters for my present purposes is that Goodman refuses any clear-cut distinction between reality and its descriptions (WW 114). Consequently, the divide between versions and worlds is necessarily blurred, for what we refer to (i.e., worlds) cannot be conceived independently from the versions which answer them. Saying this doesn't mean that worlds and versions are identical. The former are ontological realms, which can be understood as the denotata of versions, or alternatively, as what they are committed to. The latter are complexes of symbols functioning referentially. As Goodman
insists, "the world is not the version itself; the version may have features-such as being in English or consisting of wordsthat its world does not. But the world depends upon the version" (MM 34, see also SM 144). I think, then, that Goodman's point is that worlds and versions are distinct but necessarily co-dependent. This is probably what made Scheffler think that pluriworldism could be understood versionally. According to Goodman, there are no worlds without corresponding true versions and no true versions without their corresponding worlds. Every true version refers-or is ontologically committed-to a certain world; and every actual world depends on a true version. Therefore, while it is mistaken to conflate worlds and versions, as Scheffler proposed, it is equally wrong to disconnect them entirely. Accordingly, we may hold together both a distinction and close relationship between versions and worlds, as long as we are willing to defend, as Goodman does, an antirealist view regarding what there is:
Scheffler is disturbed by my saying both that a term or picture or other version is ordinarily different from what it denotes and yet also that talk of worlds tends to be interchangeable with talk of right versions. But . . . although "table" is different from tables, and "constellation" different from constellations, still tables and constellations and all other things are version dependent.
(SM 166)
All of the previous should be enough to answer Scheffler's worry. Goodman endorses objectual pluriworldism, while admitting a narrow co-dependence of versions and worlds. This, I believe, is the source of the idea that irrealism could be taken in a versional sense. If what I have said is correct, this impression is clearly mistaken. A world simply isn't a version, although it is necessarily version-dependent.

### 4.3. Goodman's nihilism

How are we to explain, finally, Goodman's occasional insistence that there exists no world at all? Let us consider his contention that "if there is any world, there are many, and if many, none"
(MM 39). How should we make sense of this alleged equivalence (or complementariness) between pluriworldism and nihilism? I believe that the distinction introduced above between the schematic and metaphysical uses of "world" allows us to solve this puzzle. The first step of Goodman's reasoning (if any... many) can be understood as follows. Let us suppose that there exists an exhaustive totality corresponding to what philosophers have called "the World". Since Goodman argues that there are conflicting true versions, which correspond to different ontologies, one will need to reckon the existence of several worlds, schematically understood. But these schematic worlds, as we said, can also be considered (indexically) as encompassing totalities. If we agree that there exists something such as the world, we must indeed reckon that there are many, given that we have competing ontologies corresponding to the many true but conflicting versions. Consider, now, the second step (if many . . . none). Once we admit that there are several worlds, we may say in return that there is none, for there is no single totality which encompasses every version and every ontological realm. Pluralism yields nihilism, then, in the sense that it entails the loss of the unique and ready-made world. To put it differently, I think that Goodman's slogan makes sense as long as the occurrences of "world" therein are given different meanings. This can be reconstructed as follows. Those who hold that there is one world (in the metaphysical sense), once confronted with the fact that there are multiple conflicting but true versions, will have to concede-so Goodman says-that there are several worlds in the schematic sense. But if there are several worlds (in the schematic sense), and if these can be understood-indexically-as totalities, there can in return be no single and all-embracing world (in the metaphysical sense). Put this way, Goodman's slogan becomes more intelligible. While a good deal of argumentation would, of course, be required to warrant each of these dialectical steps, I take it that Goodman's conjunction of pluralism and nihilism isn't antinomic after all.

## 5. The Many-Worlds Argument

The previous replies, I hope, will be enough to dismiss or at least temper what I take to be the most frequent complaints against pluriworldism. If that is so, we ought to take Goodman's proposition more seriously and subject it to closer scrutiny. In this spirit, I will now examine how the case for pluriworldism can be made more precisely. As it stands, Goodman grounds his view on a rather technical argument, which may be labelled the "many-worlds argument". The latter has rarely been discussed by critics. ${ }^{10}$ Confident that pluriworldism was at best obscure and at worst incoherent, many have preferred, indeed, to focus their attention and objections on Goodman's worldmaking thesis. But what is truly novel in irrealism isn't so much its constructivist or antirealist facet. The contention that there are several actual worlds, however, has few equivalents in contemporary philosophy. If only for this reason, it deserves closer examination.

### 5.1. The structure of the argument

The many-worlds argument may be found at various places in Goodman's works (MM 30-34, RP $50-51, S M_{151-52) . ~ I t s ~ c l e a r e s t ~}^{\text {1 }}$ and most concise formulation is the following:

To anyone but an arrant absolutist, alternative ostensibly conflicting versions often present good and equal claims to truth. We can hardly take conflicting statements as true in the same world without admitting all statements whatsoever (since all follow from any contradiction) as true in the same world, and that world itself as impossible. Thus we must either reject one of two ostensibly conflicting versions as false, or take them as true in different worlds, or find if we can another way of reconciling them. (WW 110)

[^6]Goodman, here, confronts us with a dilemma. Given an initial problem-i.e., the existence of conflicting but supposedly equally true versions-one of the following options must be true. We might maintain (a) that true conflicting versions are true of one and the same world; (b) that one member within each pair of conflicting versions must be false; (c) that conflicting true versions are true in different worlds; or (d) that these versions are not really conflicting and can therefore be reconciled. Among these possible answers, (c) corresponds to pluriworldism as discussed above. Then, two things are required from Goodman in order to secure his view. First, he must give reasons to think that the initial issue-viz., the existence of conflicting true versions-is genuine and cannot be explained away. Second, he must eliminate options (a), (b), and (d). If (c) is shown to be true in at least one case of true conflicting versions, then pluriworldism will be established successfully. ${ }^{11}$ The many-worlds argument, as it stands, is formally equivalent to a complex disjunctive syllogism (see Huschle 2000, 86). To avoid useless complication, I take it that its core principles can be expressed simply as follows:
(P1) There are true conflicting versions.
(P2) To each true version answers a world.
(C1) Either true conflicting versions answer to one and the same world or they answer to different worlds. (P1, P2)
$\left(\mathrm{P}_{3}\right)$ True conflicting versions cannot answer to one and the same world.
(C2) True conflicting versions answer to different worlds. ( C 1 , P3)

[^7]This simplified representation of Goodman's argument, I think, makes clear what are its most controversial premises. ( $\mathrm{P}_{2}$ ) is relatively unproblematic. If Goodman's concept of "world" is indeed schematic, this premise amounts to the mundane claim that every true description of reality is committed to the existence of such and such configuration of objects, properties, or relations. ${ }^{12}$ Given that this could be accepted even by an opponent of pluriworldism, I think that this assumption need not be discussed any further. However, premises ( $\mathrm{P}_{1}$ ) and $\left(\mathrm{P}_{3}\right)$ are not obvious and deserve closer scrutiny.

### 5.2. The case for (P1)

Let us, first, consider Goodman's claim that "alternative ostensibly conflicting versions often present good and equal claims to truth" (WW 110). This premise, crucially, is the starting point from which the many-worlds argument unfolds. But how are we to warrant this assumption? To my knowledge, Goodman doesn't offer any clear-cut argument to justify ( P 1 ), simply stating that "the fact that there are many different world-versions is hardly debatable" (WW 4). This confidence perhaps stems from the fact that Goodman had already argued at length, in his earlier works, that distinct "constructional systems" could be devised, none of them being epistemically or ontologically privileged over the others (see Goodman [1951] 1977, [1941] 1990). More generally, it is certainly uncontroversial that there exist conflicting axiomatizations or systems in logic, mathematics, and physics. As a matter of fact, anyone but the full-blown reductionist will admit that there are non-equivalent and even incompatible theories or descriptions of the world, at least in the sciences. What (P1) states, however, is certainly not so innocuous. Even if one agreed on the existence of rival world-versions, it is certainly

[^8]problematic to consider them, as Goodman does, as "conflicting truths" (WW 110-11). One may wonder, indeed, what allows one to think that there are true rival versions. As I pointed out, Goodman doesn't develop any knock-down argument to support this premise. However, he offers several alleged examples of true but contradictory statements, which are supposed, by extension, to embody conflicting true versions. His most recurrent example of such competing versions is the following (WW 2, MM $30, R P$ 50, 98-99). Consider:
(1) The sun always moves.
(2) The sun never moves.

These two statements are ostensibly conflicting, in the sense that nothing can absolutely be still and moving at the same time. For this reason, the conjunction of (1) and (2) yields a contradiction. Still, Goodman claims that the two assertions are "equally true" (WW 2). Such a contention makes sense once it is recalled that motion and rest are generally understood relativistically. Whenever we seek to describe the motion state of a certain material object, that is, we must do it in regard with other bodies which we will take to be absolutely moving or absolutely still, and which constitute our "frame of reference" for that matter.

The previous statements, then, may be considered true in the sense that each is true "within an appropriate system" (WW 111). (1) is true within a geocentric system and (2) is true from a heliocentric viewpoint. What's more, these statements are equally true in the sense that we often switch from one of these frames to the other ( $M M_{32}$ ). The truth of (1) is uncritically accepted in ordinary parlance. We adopt a geocentric viewpoint, for instance, when we ask when the sun will set or when we compare the speed of racing cars. On the other hand, we will normally adopt a Copernican frame of reference-and thus, assert the truth of (2)-when we describe the solar system during an astronomy class. From this, Goodman concludes that (1) and (2), although
they ascribe conflicting properties to one and the same entity, may nonetheless be regarded as equally true. Assuming that these statements stand in shorthand for versions, we would here have an alleged case of conflicting true versions, and thus, of different worlds.

Yet, and as Goodman reckons, this example isn't perhaps the best way to support $\left(\mathrm{P}_{1}\right)$. Conflicting statements regarding rest and motion give a somewhat watered-down picture of what he takes to be competing true versions, for they use "much the same terms and are routinely transformable into one another" (WW 3, 93). It could be argued, for that matter, that the previous statements, while perhaps non-equivalent and supposedly true, do not really conflict. To prevent this worry, let us consider another instance of what Goodman takes to be conflicting true versions. According to him, Paul Kolers' experiments on "apparent motion" provide yet another case of conflicting truths. When two luminous spots are displayed close to one another on a contrasted screen in a brief temporal interval, one typically gets the illusory perception that the first point moves to the position of the second. Our perceptual system, that is, builds up a phenomenal continuity between events which are nevertheless physically disjoint. Consider, now, the two following statements (WW 118):
(3) A spot moves across the screen.
(4) No spot so moves.

Goodman considers (3) and (4) to be equally true. Here again, this claim must be understood in relative terms, i.e., as depending on the framework one will adopt. (3) will turn true and (4) false if the version we are working with is phenomenalistic, that is, if it accounts for the visual appearances in terms of (say) sense-data. Conversely, (4) is true and (3) false under a physicalist framework, in which the phenomena are only described in terms of observational statements made in the language of
physics. This example, Goodman adds, is particularly interesting, as it cannot be understood as a case of conflict between two empirically equivalent theories. Phenomenalistic and physicalist descriptions are not mere notational variants. They do not readily translate into one another. More importantly, they "do not evidently deal with all the same objects" (WW 93). While the phenomenalist version refers to a seen motion and is only committed to the existence of one moving spot; the physicalist one admits some unseen stimuli and acknowledges the existence of two spots. What we have here, then, isn't a simple case of competing descriptions regarding the underlying nature of certain entities. These versions actually disagree even regarding which and how many entities there are. If we suppose, as Goodman proposes, that these versions are equally adequate, that they bear on the same phenomena, and that nothing allows us to rule out one or the other as a non-starter, we would therefore have here another case of conflicting true versions.

The previous elements should be enough to have a sense of what Goodman considers as cases of true but conflicting statements or versions. Other examples abound. Presumably, the wave-particle duality in physics or the opposition between physicalist and mentalist vocabularies in the philosophy of mind would also correspond to what Goodman envisions here. The latter, in fact, broadly invites us to count as rival versions the many descriptions and depictions of reality found in "the vast variety in the several sciences, in the arts, in perception, and in daily discourse" (WW 94).

Should we simply agree to ( $\mathrm{P}_{1}$ ), then, and admit that there are indeed true conflicting versions? It is likely that a proper justification of this premise would require us to take a closer look at the peculiar brand of antireductionism that Goodman advocated in his first works (see Elgin 2009). At any rate, I think that (P1) could be accepted under a weaker form. Granted that we can, indeed, observe many examples of allegedly true but conflicting statements or versions (at least in the sciences), we may concede,
minimally, that there seem to be cases of true conflicting versions. This is certainly not as strong as Goodman would have it, but this is also less controversial. This weaker reading of ( P 1 ) is enough for the many-worlds argument to proceed: if there seem to be conflicting true versions, we indeed have the potential threat of a contradiction between versions, which needs to be explained away.

### 5.3. Arguing for (P3)

Let us suppose that Goodman is right in claiming that there are seeming cases of conflicting true versions. Let us also accept-as (P2) demands-that to every true version answers a world. Then, we are confronted with the following alternatives, presented in (C1): either the true conflicting versions answer to different worlds or they answer to one and the same world. Goodman's irrealism, obviously, embraces the first option. But why couldn't we claim, with the "one-worldist" (Kukla 2000, 100), that conflicting statements are true of one and the same world? What is it, in other words, that warrants ( $\mathrm{P}_{3}$ )? Goodman's answer is clear and, I think, unobjectionable. Suppose that the aforementioned pairs of statements about the sun are equally true. Plainly, their conjunction cannot be true in or of the same world, simply because it would entail the existence of true contradictions. Since (1) and (2) are contraries, the truth of one entails the falsity of the other, so that pretending that it is true in the same world that the sun always and never moves would amount to accepting something like " $p \wedge \sim p$ ". But, as one knows, everything follows from a contradiction-this is the famous "explosion principle" (ex falso quodlibet). ${ }^{13}$ To suppose that (1) and (2) are true

[^9]about or of the same world, then, would entail the truth of any statement whatsoever, however arbitrary: "since all statements follow from a contradiction, acceptance of a statement and its negation erases the difference between truth and falsity" (MM 30). Countenancing conflicting truths within one and the same world, then, leads to an indefensible form of relativism, which makes it clear that such worlds are "impossible" (WW 110). In brief, and while Goodman admits the existence of conflicting truths, he is no dialetheist. Nothing in the many-worlds argument implies a violation of the Principle of Non-Contradiction. On the contrary, it is precisely the acceptance of this principle that secures $\left(\mathrm{P}_{3}\right)$. But if we admit this particular defence of $\left(\mathrm{P}_{3}\right)$, along with the other premises of the argument, and if we are to reject the possibility of true contradictions, we must concede that conflicting versions are true of (or in) different worlds. Q.E.D.

### 5.4. Contra (P3): a simple fix?

The previous case for the many-worlds argument, however, is much too quick to convince anyone. Why think, indeed, that Goodman's alleged case of true conflicting statements are irremediably conflicting? One could argue that, between the acceptance of true contradictions and that of many-worlds, there remains an intermediate and more plausible option: one could simply point out that (1) and (2)—and other similar pairs of allegedly conflicting true statements-are not really incompatible, so that they can after all be true of the same world. In that case, $\left(\mathrm{P}_{3}\right)$ could be denied, undermining Goodman's conclusion.

The most promising option, here, is to appeal to what I will call the "relativization strategy", which consists in relativizing true conflicting statements to different schemes or frameworks. In fact, this is what we have done above, by relegating (1) and (2) to different reference frames, and (3) and (4) to different philosophical systems. Here, it could be argued that this process of relativization allows us to solve the conflict between these al-
legedly true contradictory statements. Instead of (1) and (2), for instance, we might say:
(5) Within a geocentric system, the sun always moves.
(6) Within Copernicus's system, the sun never moves.

At first glance, and granted that motion must be described relativistically, these new statements seem to be correct specifications of the meaning of (1) and (2). The main interest of such paraphrases is that (5) and (6) do not conflict any longer. Indeed, the fact that a certain contention is true within a certain system doesn't prevent its being false within another. Therefore, the relativization of (1) and (2) to different frames of reference seems to be a simple fix to the problem: the two conflicting true versions could after all be true of or in one and the same world. The same move works equally well in the case of statements (3) and (4) and, presumably, with any other instances of conflicting true statements or versions. There would be no need, then, to commit to pluriworldism and its exorbitant ontological cost.

Goodman, however, contends that the relativization strategy fails. He intends to show this through an analogy. Consider the following assertions (WW 112):
(7) The kings of Sparta had two votes.
(8) The kings of Sparta had only one vote.
(9) According to Herodotus, the kings of Sparta had two votes.
(10) According to Thucydides, the kings of Sparta had only one vote.
These statements formally mirror the ones examined above. While (7) and (8) cannot be true at once, the relativized statements (9) and (10) can unproblematically be held together. The reason is that the latter do not bear on the kings of Sparta themselves, but rather, on what notorious Greek historians have said
about them. This is why (9) can be true even if the kings of Sparta had actually only one vote; just like (10) can be true even if they had two. In fact, (9) and (10) would remain true even if there never were any kings in Sparta. But this, notes Goodman, reveals a major flaw of the relativization strategy. Given that their truth conditions differ so ostensibly, it is mistaken to consider (9) and (10) as equivalent in meaning or reference-and thus, as correct paraphrases-of (7) and (8). While the former assert something about the kings of Sparta, the latter simply record something that has been reported about them.

According to Goodman, the exact same thing goes on regarding statements (1)-(2) and (5)-(6). While (5) and (6) can be simultaneously true, these relativized statements do not directly bear on the sun, as (1) and (2) did. They express, rather, what is said of the sun under such or such theory. Statements (5) and (6), if true, aren't truths about a star and its putative motion or rest, but truths about reference frames ( $M M$ 30). Although the process of relativization makes the conflict between the original statements disappear, it also deprives them of their original reference or scope. While (1) and (2) ascribe rest or motion to the sun, their relativized counterparts do not. (5) is true even if the sun remains still and (6) even though it continually moves. It seems, for that matter, that (1) and (2) assert something that (5) and (6) fail to capture. The issue, in brief, is that asserting something about a given entity $e$ simply isn't equivalent to pointing to what is said about $e$ in a given framework. "The Sun is the god Ra" might be true when relativized to the framework of Egyptian mythology, but this doesn't amount to nor entail its truth simpliciter. If we agree to the previous point, i.e. that relativized statements aren't fuller formulations of their categorical counterparts, Goodman is right to reject the relativization strategy. In that case, $\left(\mathrm{P}_{3}\right)$ stands firm, so that the conflict between versions may be maintained after all.

### 5.5. A worry

This particular defence of $\left(\mathrm{P}_{3}\right)$ against the relativization strategy raises an obvious problem. Goodman implicitly seems to accept that there is a sense in which statements regarding motion and rest could be absolutely-rather than merely relatively-true. But certainly, one might complain that it doesn't make sense to draw an opposition between categorical statements (1) and (2) and their relativized counterparts (5) and (6). It could be argued that the former possess no truth value, insofar as any statement regarding motion needs to be relativized to a reference frame. For that matter, we might want to regard unrelativized statements as ordinary but inaccurate ways of speaking, to be ultimately eliminated from scientific discourse. In that case, (5) and (6) would be what we really mean when we assert (1) and (2). This sort of move, presumably, could be generalized to other alleged cases of conflicting truths, in order to save the relativization strategy. Goodman's first reply to this complaint is that categorical statements are indispensable in practice, so that they turn out to be non-equivalent (or irreducible) to relativized ones after all. Asserting that the bus is moving can be important or even vital when a reckless pedestrian crosses the street. It seems implausible to think that this categorical utterance could not be ordinarily accepted as true or false without explicit relativization to a given frame of reference. Indeed, it would seem ridiculous to claim that the same information could have been transmitted through the more exact and careful statement: "Watch out! Within a geocentric system, the bus is moving (although I must stress that it isn't, of course, within other frames of reference)!". Of course, we know that motion and rest, in physics, are adequately understood relativistically rather than absolutely. This doesn't mean, however, that absolute rest or motion are simply banned from ordinary discourse and practice. As Goodman points out: "we are severely handicapped if rather than saying whether or how a given object moves, we are restricted to describing changes
in relative position" (WW 114). The practical usefulness and indispensability of categorical statements, then, hint that they substantially differ in meaning and in epistemic value from their relativized counterparts (Elgin 1996, 169). In practice, they are not, at any rate, reducible to the latter.
I envision an additional reply to the aforementioned objection. Suppose we wish to determine the speed of a racing car. For the purpose of this measurement, we will normally adopt a geocentric viewpoint. The crucial point is that we will not, here, simply reckon or assert that the car is moving relative to such or such frame of reference, as if all things were contextually equal. Rather, we will do as if the Earth was absolutely still, or again, as if (1) was absolutely true. Of course, we know that the car, under other reference frames, could be described as being still or perhaps, as moving at a quite different speed. We also know that geocentric frameworks are of little use in astronomy. Yet, this is contextually irrelevant. Given this particular situation, we can simply ignore the other frames of references or versions that we still know to exist. The motion of the car or the stillness of the Earth, then, aren't taken to be relative any longer. What we do here, to borrow Goodman's expression, is transform "a relational term into a categorical one" ( $R P$ 104). If that is so, relative and absolute talk could, after all, be reconciled. While motion and rest may only be ascribed from the standpoint of a particular reference frame, we generally do so in practice as if a given reference frame was an absolute set of coordinates, for as long as the situation and our interest require. ${ }^{14}$ Goodman's point, then, is here again that we cannot pretend to eliminate ab-

[^10]solute statements regarding motion and rest. That every object may be ascribed an indefinite number of trajectories under many reference frames does not mean that we are allowed to appeal to them all at once, or that they all will be contextually relevant ( $R P$ 98-99). To contend that motion is relative is certainly accurate but remains empty as such ( $W W$ 21). One may agree that motion and rest are always version-relative and that they will vary between versions, but maintain, inside any given version, the absoluteness of rest and motion.

If all of the previous is correct, the relativization strategy indeed fails to eliminate the initial conflict between true competing statements such as (1) and (2). Once a reference frame is adopted in theory or in practice, it is temporarily converted into an absolute framework. We are then committed to recognizing the truth or falsity of certain categorical statements, at least for as long as we work with-or act from-this particular reference frame. To that extent, it is indeed because "we usually think and work within one world-version at a time" (MM 32) that we may consider (1) or (2)—along with other such pairs-as categorically true or false. The consequence is that their conflict remains substantial: if we cannot do without categorical statements and if they are conflicting but true of the same entities, we are still facing the threat of a true contradiction. In brief, while the relativization of assertions to descriptive schemes or reference frames is theoretically indisputable, Goodman suggests that it is mistaken to consider that this strategy allows us to solve the conflict between true rival versions: "what is misguided then is not relativization to a system of representation or frame of reference, but a simple-minded understanding of what such relativization achieves" ( $R P_{51}$ ).

### 5.6. Other challenges to (P3)

If we admit that relativization doesn't enable the elimination of true conflicting statements, the last remaining options to chal-
lenge $\left(\mathrm{P}_{3}\right)$ are the following: "we must either reject one of two ostensibly conflicting versions as false... or find if we can another way of reconciling them" ( $W W$ 110). If these options are proved to be unacceptable in at least one case of allegedly true conflicting versions, ( $\mathrm{P}_{3}$ ) will have been warranted-along with the conclusion of the many-worlds argument.

Let us consider the first possibility. Could it be that one within any pair of allegedly true conflicting statements (or versions) turns out to be false after all? As it stands, nothing allows us to rule out such an eventuality. It certainly seems possible that a statement or version considered true at some time gets rejected later on. The history of science, of course, is full of such examples. In such cases, the problem of true conflicting versions finds a simple resolution, as one of the contenders is simply eliminated. If this strategy can be generalized to each pair of rival versions or statements, pluriworldism is undermined. Goodman, however, insists that it is implausible to think that every pair of true conflicting statements or versions is such that one within each pair will sometime turn out false. While certain current cases of conflict might be resolved in the future, nothing allows us to think that this will systematically be so. As Catherine Elgin points out:

The acceptability of conflicting world versions is not a temporary condition that will be remedied by further inquiry. Some currently acceptable versions will no doubt be ruled out by future findings. But those findings will support a multiplicity of new versions. Divergent systems are acceptable, not because evidence is inadequate, but because even the most demanding criteria of adequacy turn out to be multiply satisfiable. Our standards of acceptability are not selective enough to yield a unique result. Nor do we know how to make them so. We have every reason to believe that no matter how high we set our standards, if any world version satisfies them, many will do so.
(Elgin 2000, 11-12)
The appeal to future resolution, for that matter, may seem to amount to nothing more than wishful thinking. But the oneworldist will perhaps protest that she claims something stronger,
namely that, for each pair of conflicting statements or versions, at least one within the pair must be false, independently of our discovering or verifying it. Note that such an assumption requires the existence of a world independent in its nature from human cognition. In other words, it is committed to the existence of version-independent truthmakers: something in the world would make one version within each pair of conflicting versions false. This proposal, however, has the major drawback of leading to skepticism. We will never know which version is true within each pair of competing versions, when both satisfy all the criteria we can devise to assess them. ${ }^{15}$ Even if we left that worry aside, Goodman offers a distinct and stronger reply to the one-worldist on this point. According to him, the notion of a ready-made world is untenable, for it requires the impossible demand of describing an infra-versional reality from the standpoint of versions : "talk of unstructured content or an unconceptualized given or a substratum without properties is self-defeating; for the talk imposes structure, conceptualizes, ascribes properties" (WW 6). While this antirealist line of thought is certainly controversial, it entails, if accepted, that we cannot appeal to an infra-versional reality. But then, the one-worldist cannot deny $\left(\mathrm{P}_{3}\right)$ by claiming that certain independent states of affairs sort out rival versions. If we follow Goodman's antirealist argument, the objection according to which one of every pair of conflicting versions must be false, whether we know it or not, can therefore be dismissed.

There remains, however, a last possible way to reject $\left(\mathrm{P}_{3}\right)$. This ultimate strategy would consist in showing that the conflict between statements or versions arises from an ambiguity that can be analysed or explained away. Various illustrations of this method of resolution can be considered. "France has a king" and "France has no king" are contradictory, but may nonetheless be true of the same world once relativized temporally, that is, by

[^11]pointing out that one is true before 1789 and the other thereafter. Likewise, "the table is white" and "the table is brown" do not conflict anymore once relegated to discrete material parts of the table. In other cases, true conflicting statements can be reconciled if it turns out that they were elliptical and bore on "parts or subclasses of the same world" (WW 111). That all water is and is not saline might be true if these statements bear respectively on oceans and rivers. It is clear, also, that the conflict between versions or statements can be explained away if one turns out to be reducible to the other, or if they are inter-translatable.

Many possibilities can be envisioned, then, to temper and eventually annul the conflict between true rival versions. This type of strategy militates against ( $\mathrm{P}_{3}$ ), for conflicting versions could in that case turn out to be true within and of a same world. Goodman, however, contends that "peace cannot always be made so easily" ( $W W$ 111). For him, there are some cases of irremediably conflicting true versions, for which all of the previous strategies of reconciliation fail. Let us consider the following case:
(11) Every point is made up of a vertical and a horizontal line.
(12) No point is made up of lines.

As Goodman points out, each of these contrary statements is true under some appropriate system ( $W W$ 115). (11) is true and (12) false within a framework which takes lines as primitives; but (12) is true and (11) false in a Whiteheadian system where points are constructed as classes of nesting volumes. Goodman has it that none of the strategies mentioned above is apt to reconcile these conflicting versions. The relativization strategy is a non-starter, for the reasons stated above. These statements do not bear, either, on temporally or spatially distinct segments of the world. They apply to the same things existing at one and the same time. Moreover, there is no proof that these geometrical frameworks are inter-translatable or reducible to another. No more can they
be considered as both true within one and the same world (WW 9). Lastly, we cannot pretend to solve their conflict by considering the choice between these frameworks as purely conventional, for this would suppose that there are neutral underlying facts which may be described in diverging ways-a line of thought that irrealism, as we said, rejects entirely. Supposing that all attempts to reconcile (11) and (12) fail, we would here have a case of irremediably conflicting true versions. But if that is so, and if we are to refuse the existence of true contradictions, we cannot do otherwise but accept that these versions are true of different worlds (WW 115-16). The solution to the issue of conflicting truths, then, is that "conflicting statements, if true, are true in different worlds" (RP 50, MM 31). Pluriworldism ensues.

## 6. On A Possible Misunderstanding

Now that the argument for pluriworldism has been considered in some detail, and before considering possible objections, I want to spend some time arguing against a possible misunderstanding of Goodman's point. Pluriworldism, some might think, should be understood as a sort of deflationary position, rather than as a substantial form of ontological pluralism. Goodman's proposal, indeed, is reminiscent at times of Carnap's (1950) claim that there exist competing "linguistic frameworks" whose acceptance would merely be a pragmatic matter. For some followers of Carnap, this plurality of frameworks allows us to regard most ontological disputes as merely verbal. As Eklund aptly sums up:

The [Carnapian] language pluralist emphasizes that there are many different possible languages and that one and the same sentence (non-semantically individuated) can have different meanings and different truth-values in the different languages. The language pluralist further emphasizes that the language we happen to speak is just one among these possible languages... The language pluralist may then... further insist that participants in ontological debates often speak past each other. She may say that when one theorist
says "there are numbers" and another says "there are no numbers" they do not actually contradict each other. They use different languages, and they do not in fact express incompatible propositions.
(Eklund 2013, 4)
According to this view, which has often been labelled "quantifier variance", there would exist several non-equivalent but equally acceptable ways to specify the meaning of the existential quantifier (and related idioms), none of them being intrinsically privileged over the others. Variantists, in other words, claim that the vocabulary of existence is always relative to one linguistic scheme or another (Hirsch 2011, 84). This sort of view, typically, is used to deny the substantiality of certain ontological debates. Indeed, if two metaphysicians who disagree about what there is happen to implicitly give different meanings to their existential quantifiers, it seems that their disagreement is merely linguistic or verbal. Variantists have it that most ontological disagreements conform to this model. Metaphysical opponents would simply disagree about manners of speaking, rather than about substantial ontological facts. I mention these recent discussions because some might wish to construe pluriworldism as a type of variantism. This reading, actually, is encouraged by Goodman's own contention that irrealism portrays ontology as "evanescent" (MM 29) and consists less in a doctrine than "an attitude of indifference" regarding traditional metaphysical disputes (MM43). Drawing on this, one might wonder if Goodman's conflicting versions do not, eventually, cover non-equivalent notions of "existence", "object", "entity", etc. Under this assumption, rival versions would reflect different choices of linguistic or logical conventions. A potential outcome could be a form of ontological deflationism. A variantist, indeed, might draw on the famous Carnapian distinction between "internal" and "external" questions to argue that we shouldn't take the ontological commitments of rival versions too seriously. Carnap (1950) famously argued that questions of the form "Are there Fs?" are trivially answerable when understood from the internal viewpoint of a
given framework, while denying that they make sense externally, i.e., when asked in the absolute or without reference to any given framework. Likewise, a variantist might suggest that it is trivial from the (internal) standpoint of a given version that there are $F$ s, while denying that the (external) question of knowing whether there really are Fs makes any sense at all. This reading is attractive in that it accounts for Goodman's characterization of irrealism as an attitude of indifference. It also has the advantage of reducing the strong form of ontological pluralism envisioned so far to a more innocuous and perhaps more acceptable type of framework-pluralism.

In spite of its initial plausibility, I think that it would be deeply mistaken to understand pluriworldism in this neo-Carnapian fashion. My argument against this suggestion is the following. Imagine a version $V_{1}$, for which there are $F s$, and another version $V_{2}$, for which there are no Fs. Suppose, for the sake of argument, that these versions are true, irreducible, and that all attempts of reconciling them have failed-so that their current conflict is indeed irremediable. Consider now the following assertions:
(13) $\exists x F x$
(14) $\sim \exists x F x$

Statement (13) is true according to $V_{1}$ and false according to $V_{2}$; while statement (14) is true for $V_{2}$ and false for $V_{1}$. Since these statements cannot be jointly true in the same world, it follows, from the many-worlds argument, that there are (at least) two worlds: a world $W_{1}$, answering to $V_{1}$ and in which there are $F \mathrm{~s}$, and a world $W_{2}$ referred to by $V_{2}$ in which there are no $F s$. If Goodman was defending something akin to quantifier variance, he would assume that the existential quantifier as it appears in (13), and by extension, in $V_{1}$, covers a notion of existence that differs from that encompassed by the existential quantifier that (14) and $V_{2}$ appeal to. Let us suppose that $V_{1}$ resorts to a permissive notion of existence-that we might label " $\exists_{V_{1}}$ "and that $V_{2}$ construes it in a more austere fashion (noted " $\exists_{V_{2}}$ ").

If such was Goodman's proposal, the many-worlds argument could not get off the ground. (13) and (14) are incompatible statements which cannot be true of the same world. However,
(15) $\exists_{V_{1}} x F x$
and
(16) $\sim \exists_{V_{2}} x F x$
are entirely compatible and can be true at once. What the conjunction of (15) and (16) expresses is that, in a certain sense of "existence", there are $F \mathrm{~s}$, while in another, there are none. If we resort to $\exists_{V_{1}}$, there indeed will be $F \mathrm{~s}$, but not if we prefer $\exists_{V_{2}}$. Goodman cannot say anything like this. The reason is that it would entail that rival statements about $F$ s do not conflict any longer. They would be two equally acceptable manners to talk about what there is. But then, nothing would prevent us from considering $V_{1}$ and $V_{2}$ as true of the same world. By ascribing different notions of "existence" to conflicting statements, quantifier variance provides a means to their reconciliation. But this obviously doesn't fare well with Goodman's pluriworldism, which precisely states that there are many worlds inasmuch as there are true and irremediably conflicting versions. Without conflict, that is, there is no reason to countenance rival worlds. This shows that the cases of conflict must not be understood, for Goodman, as mere verbal disputes. True conflicting statements must be substantial cases of disagreement. Quantifier variance, then, directly undermines pluriworldism. This conclusion is worth stressing, for it reveals that Goodman's view isn't a deflationary or merely linguistic brand of pluralism, which might be conflated with what some neo-Carnapians advocate. It is, rather, a strong ontological pluralism, according to which the multiplicity of true frameworks or versions implies the existence of whatever the latter refer or are committed to. This makes pluriworldism a substantial metaphysical position in its own right.

## 7. Challenges For Pluriworldism

Above, I surveyed Goodman's many-worlds argument in detail. A careful examination of this argument, I take it, reveals that pluriworldism is more complex and more plausible than it initially appears. This doesn't mean, of course, that the view is unproblematic. Many, for instance, have argued that it eventually leads to a form of self-refuting relativism: if there are many conflicting versions, and if irrealism is but one of them, why not regard the claim that there are many worlds as holding only relative to Goodman's particular version? While this is an interesting question, I will leave it aside here, given that it has already received some attention-and possible rejoindersin the literature. ${ }^{16}$ By contrast, other challenges to Goodman's pluriworldism have been insufficiently discussed until now. In what follows, I will specifically consider three of such objections, namely, (a) that pluriworldism cannot accommodate artistic versions; (b) that the many-worlds argument is dialectically fragile; and (c) that specifying the identity of the objects referred to by conflicting versions gives rise to a worrying dilemma. ${ }^{17}$

### 7.1. Pluriworldism and the arts

In the previous sections, I have intentionally restricted the scope of the discussion to alleged examples of true conflicting versions in the sciences or in philosophy. Goodman, however, understood pluriworldism more strongly. He claimed, indeed, that the arts also play a major part in the process of worldmaking ( $W W$ 103). According to him, we should also accommodate worlds made from artistic versions: "Cervantes and Bosch and Goya, no less

[^12]than Boswell and Newton and Darwin, take and unmake and remake and retake familiar worlds" (WW 105). I think, however, that there is a considerable problem with this suggestion. The many-worlds argument states that rival worlds must only be countenanced insofar as they correspond to (irremediably) true conflicting versions of reality. But artistic versions, the objection goes, are not true at all. Many artworks-and entire artformsare not even truth-apt, in the sense that they may not be evaluated in terms of truth and falsity. A painting, a sculpture, a building, a symphony, do not consist of sentences and do not literally assert anything. They are neither true nor false. Even if one ignored this principled difficulty and focused on truthapt and assertive artworks (such as most literary works), one could maintain that there is no literal truth to be found in these artistic versions. Imagine two novels whose first lines would be: "There never were any dragons" for the one; and "There always were dragons" for the other. Plainly, we wouldn't object here that one of the two stories must be false, on the threat of contradiction. Instead, we will be happy to admit that such sentences-along with the works they belong to-are neither literally true nor false, although they may certainly be fictionally so, i.e., relative to a certain fictional work. But here, there is no way to object to this relativization, as Goodman did with in the cases of scientific and philosophical versions. While it is true in one fiction and false in the other that there were dragons, the unrelativized statement that there were dragons is either categorically false or devoid of truth value. What's more, although we might perhaps hold that these statements or stories are true "in different worlds", it would not be with the intention to resolve their conflict. Fictions are generally conceived as enclosed universes, so that what goes on in one has no bearing on what is true in another. Anyways, even if we admitted that there are indeed "fictional worlds", these would not correspond to what pluriworldism envisions. At best, these representational worlds of fiction would be merely possible worlds (Lewis 1978)
or "work-worlds" towards which we have an attitude of makebelieve (Walton 1990). They wouldn't, certainly, count as actual worlds. One might object to the previous that there is more to art than literal truth and falsity. As Goodman argued, artistic versions might be metaphorically true or false, the putative result being that "worlds are made not only by what is said literally but also by what is said metaphorically" (WW 18). Suppose that John is an inveterate seducer. In that case, my reading of Molière might lead me to say that John is a Don Juan. This statement is literally false but metaphorically true. Generalizing, one might suppose that artworks may contain or yield certain metaphorical truths, so that they could eventually fit within the many-worlds argument. This reply isn't convincing. The metaphorical truth of the statement that John is a Don Juan, indeed, does not directly stem from the artistic version under consideration. In the fiction of Molière's Dom Juan, that is, in the "work-world" of Don Juan (Walton 1990), it is literally and metaphorically false that John is a Don Juan, for John, of course, doesn't exist within the fiction. Certainly, one may think that literary works afford certain insights about certain types of character, that we may come to recognize in ordinary experience. Still, they usually make no claims regarding what goes on outside the fiction. Literary works, typically, are not concerned with any other realitythan their own fictional world, i.e., to anything further to which their concepts or categories could apply. That a given truth or falsity may be extracted from a fiction doesn't mean that the artwork itself, qua version, is true or false (Lamarque and Olsen 1994). Goodman, I believe, foresaw this sort of worries (WW 3). Yet, he maintained that artistic versions do make worlds. As far as I can tell, his justification for this was his claim that truth is too narrow of a criterion to evaluate versions, artistic or otherwise, so that we should resort to a broader and multifaceted notion of "rightness" instead. ${ }^{18}$ If this is so, the many-worlds argument

[^13]could after all get off the ground in the case of the arts, for it could be reframed in terms of conflicting right versions. ${ }^{19}$ Artistic perspectives, indeed, are sometimes said to conflict. If it turns out that two of such rival perspectives are "equally right", we might end up with a problem akin to that of conflicting truths, and possibly, with conflicting artistic worlds. I must say, though, that I do not find this proposal very compelling. There is little doubt that some artistic versions may be at odds one with another. But we do not feel threatened by rival artistic perspectives as we do with alleged instances of conflicting truths. After all, rightness is not truth. Two right versions may conflict, but their conflict will not yield a genuine contradiction as in the case of true versions. Contending that they do would probably imply the reduction of rightness to truth, so that the original worry would remain. Moreover, even if we could make sense of the idea of "right contradictions", I maintain that the existence of rival artworks doesn't commit us to a desperate choice between contradiction and pluriworldism. A careful investigation may reveal that the conflict is avoidable in that both versions may be right relative to different things. We may, on reflection, elect one of them as presenting the correct perspective. We might also find that these versions, after all, do not really disagree. Goodman, as we saw, objected against such resolutions in the case of conflicting truths. But he would have to say much more to show that there are cases of irremediably conflicting right versions in the arts. For this reason, the move from truth to rightness shouldn't be taken, at least without further argument, to solve the issue of artistic versions within pluriworldism.

[^14]To sum up, a first underexplored challenge to Goodman's pluriworldism is that it is difficult to make sense of the idea that art is involved in the process of worldmaking. Artistic versions, strictly speaking, cannot fit in the many-worlds argument. If so, they do not make worlds. It is true that this issue, as I hinted, could perhaps be avoided. If we worked out what rightness exactly is, and of how right artworks can conflict with one another, something akin to the many-worlds argument could be worked out, so as to include artistic worlds within pluriworldism. But until then, we should refrain from considering artworks literally to make worlds. Although this conclusion does not undermine pluriworldism itself (for there still may be many actual worlds), it considerably reduces the scope that Goodman intended to give to his view.

### 7.2. Pluriworldism and antirealism

A second issue with Goodman's pluriworldism is dialectical. The argument through which this view is warranted (i.e., the many-worlds argument) presupposes the truth of another controversial thesis, namely metaphysical antirealism. ${ }^{20}$ In order to see that this is so, remember the various ways by which premise $\left(\mathrm{P}_{3}\right)$ of the many-worlds argument can be rejected. Among them, we found the possibility that, for every alleged pair of conflicting true versions, necessarily one within each pair must be false. Version-independent truthmakers, that is, could rule out one candidate in every alleged pair of conflicting versions. In that case, although our epistemic situation could be such that there are seeming cases of conflicting truths, the world would be such that there can be none. As I noted at the time, Goodman rejects this particular move on the ground that discourse about an underlying, independent, infra-versional world is (he claims) self-defeating. This is a familiar antirealist line of thought: given

[^15]that we need to use versions to refer to or think about anything whatsoever, any attempt to grasp an infra-versional world would suppose to mobilize the viewpoint of a given version, resulting in the self-defeating task of using versions to describe or refer to something non-versional. Goodman, that is, argues that it is doomed to failure to "test a version by comparing it with a world undescribed, undepicted, unperceived" (WW 4). If we agree that any sort of property or structure can only be conceived through versions, talk of a "pure given" or of unstructured content is doomed to failure. The world, taken apart from all descriptions, is simply devoid of kinds, properties, or structure. It amounts, therefore, to "nothing" (WW 20). The previous reasoning supposedly entails that we do not have epistemic access to reality itself, as it would be apart from our versions (WW 4). Rather, we only know and relate to the world (or to worlds) through versions. This type of argument, of course, is not unheard of. It possesses a considerable historical pedigree and may be found in the works of Kant, C. I. Lewis, Quine, and Putnam, among others. As it stands, it is also critical to Goodman's worldmaking thesis: if we only have epistemic access to versions, and if versions are mind-dependant or constructed, then we may indeed consider that what we call "the world" is a creature of versions-i.e., that versions constitute reality.

An assessment of this antirealist line of reasoning, certainly, is beyond the scope of this paper. ${ }^{21}$ All that matters for my purposes is that it makes Goodman's defence of pluriworldism a tad more fragile. If the argument just examined is, indeed, the reason why we are not allowed to appeal to independent truthmakers to solve the issue of conflicting truths, it follows that a successful defence of the many-worlds argument relies on the acceptance of a distinct argument for metaphysical antirealism.

[^16]In order to hold that there are many worlds, that is, we need first to show that the world is constructed or somehow dependent on our cognitive activities. This, I suggest, dialectically weakens Goodman's point. Moreover, the highly controversial nature of antirealism makes pluriworldism even more vulnerable to criticism. ${ }^{22}$ Reintroduce any form of realism - even a weak one-and we can safely retreat back to the safe haven of our one and only world.

### 7.3. A fatal dilemma?

A last and more troubling challenge has been identified by Dutra (1999), whose argument has surprisingly received little attention in the literature. As we saw, Goodman intends to warrant pluriworldism through the many-worlds argument. In the latter, it is assumed that two statements are contradictory if and only if (a) they bear on the same objects and (b) they ascribe incompatible properties to these objects. Let us take the two following statements, which we will assume to stand short for versions and to be true:
(17) The earth rotates.
(18) The earth stands still on its axis.

These two assertions, for Goodman, are cases of conflicting truths, since they assert one thing and its contrary about a same entity. If we suppose that these versions irremediably conflict, the only way to avoid contradiction, as we saw, is to consider them as true in different worlds: "a world in which the earth is in motion is not one in which the earth is at rest" ( $R P{ }_{50}$ ).

[^17]The issue, however, is that it is unclear how one numerically identical thing (in the current example, the earth to which the statements refer) might exist in more than one world. How, indeed, could the same earth be located in different worlds? Supposing that "the space-times of different worlds are not embraced within some greater space-time" (MM 31) seems to imply that any given entity cannot be at once within more than one world. But then, if statements (17) and (18) do indeed bear on the same object, as Goodman contends, it seems inevitable that the earth referred to by (17) is located in the same world that the earth referred to by (18). If that is so, we need to recognize after all that (17) and (18) are true within the same world. And this conclusion, of course, isn't acceptable, for it amounts to accepting the truth of a contradiction. The issue, then, is that if conflicting statements bear on the same entities, as Goodman occasionally suggests, ${ }^{23}$ these statements cannot be true of different worlds. But then, the conclusion of the many-worlds argument is undermined. A simple solution to this issue consists in denying that (17) and (18) bear on a numerically identical thing. "The earth" in one statement would refer to something altogether distinct from "The earth" in the other. We would, that is, have two different earths, each existing in the relevant world and possessing properties that the other doesn't. If there is no "transworld" identity within pluriworldism, it would indeed be unproblematic to claim that (17) and (18) are true at once. As it appears, this is what Goodman seemed to hold in his later works:

The apparent conflict between true descriptions shows that they are not descriptions of the same thing. The earth that is truly described as in motion is not the earth that is truly described as at rest. And the world of the one has no room for a planet like the other. So if both descriptions are true, they are true in different worlds. ( $R P{ }_{51}$ )
If we admit what Goodman says here, the aforementioned issue

[^18]is avoided. True conflicting versions would bear on numerically distinct entities existing in different worlds. But then, another difficulty arises. If (17) and (18) refer to different earths, there is no longer any ground to regard them as conflicting. It is no more contradictory to assert that one earth $E_{1}$ is still and that another earth $E_{2}$ is moving than it would be to say that my upstairs neighbour is nice while the one downstairs is not. Statements which ascribe incompatible properties to different objects do not yield contradictions. Then, if what Goodman advocates is that the earth of one world isn't the same as that of the other world, he cannot any longer consider that there is a contradiction between (17) and (18). But in that case, the many-worlds argument is undermined, for without conflicting truths there is no plurality of worlds (WW 119). What's more, getting rid of the contradiction leads to overcrowding. Supposing that (17) and (18) do not conflict suggests that a single world-version might accommodate their conjunction. But this cannot be, for there is no room for two numerically distinct earths in one and the same world (Elgin 1996, 138). If the previous is correct, Goodman is left with a dilemma, perfectly captured by Dutra:
If conflict involves statements concerning one and the same entity or entities, then that entity or those entities cannot exist in distinct worlds; and if conflict involves statements concerning different entities, it cannot be genuine conflict. Put another way, the dilemma runs as such: there seems to be no need for multiple worlds if there is no genuine conflict; but if there are multiple worlds, it seems there can be no genuine conflict.
(Dutra 1999, 99)
Crucially, the many-worlds argument (and therefore, pluriworldism) is undermined by either of the two options opened by this dilemma. If conflicting statements are taken to bear on the same entities, these statements must apply to and hold within one and the same world, entailing the reappearance of true contradictions. But if they are taken to refer to different things, it turns out that these statements do not conflict, so that what they refer to can after all be inhabitants of the same world. Dutra's
dilemma, as it stands, is trouble for pluriworldism. But is it enough to show that the view is a dead-end? Although I find the argument rather persuasive, it is perhaps not unchallengeable. ${ }^{24}$ In a way, these worries over the numerical and qualitative identity of objects referred to by conflicting versions might be dismissed by Goodman as being inessential. ${ }^{25}$ First, we stressed earlier that versions are taken to be exhaustive from their own standpoints. If this is so, we cannot not ask, within some version $V_{1}$, if a certain entity in another version $V_{2}$ is the same or not as such or such entity in $V_{1} .{ }^{26}$ Here again, Goodman might warn us that paradox arises only because we are conflating the internal perspective of a version with that of other versions ( $M M_{32}$ ). Secondly, if reality is always version-dependent, as Goodman argued, there seems to be little sense in wondering if an entity referred to by a version $V_{1}$ is in itself the same or not as that referred to by a conflicting version $V_{2}$. For the irrealist, there is no such extra-versional God's eye point of view. If "the world" is always version-dependent, knowing what we call the same or different will also turn out to be version-dependent. We might wish to settle such questions, but what is required then is nothing less than the construction of an adequate meta-version, which specifies the identity and individuation conditions of things across world-versions. In any case, we should not think that the qualitative and numerical identity of entities is decided independently of any version. Although this would probably require further development, if either of the two previous two rejoinders is on

[^19]the right track, Goodman could after all answer Dutra's dilemma.

## 8. Conclusion

A comprehensive survey of Goodman's pluriworldism was here offered. As I argued, this view is less implausible and much better articulated than it is generally assumed. Pluriworldism is grounded by a technical argument which needs to be carefully examined in its own right. This doesn't mean that it is unproblematic. Some reasons can be advanced so as to restrict, weaken, or perhaps even reject the notion of a plurality of actual worlds. An interesting task would be to see more precisely whether and how these challenges can be met along Goodmanian lines. In fact, even if we were ultimately to dismiss pluriworldism, the view still underlines a fundamental issue, that even opponents need to address. This problem is that of knowing how to account for rival but seemingly true and indispensable representations or descriptions of the world. The enemies of pluriworldism, for that matter, are left with the pressing challenge of accommodating the multiplicity of conflicting world-versions without countenancing true contradictions, but also, without trespassing the borders of our one and only world.

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[^0]:    ${ }^{1}$ This is, indeed, one of the recurring themes in his books Ways of Worldmaking (WW, 1978), Of Mind and Other Matters (MM, 1984), Reconceptions in Philosophy (RP, 1988, written with Catherine Elgin) and in some articles of the volume Starmaking (SM, 1996).
    ${ }^{2}$ See for instance Boghossian (2006), Kukla (2000), Wolterstorff (1987), O'Grady (2002).

[^1]:    ${ }^{3}$ There are perhaps other sources to the idea of a plurality of worlds, and thus, to Goodman's ontological pluralism. William James might be one, although I will not explore this lead. Another possible, and I believe more important, inspiration of Goodmanian pluralism might be Rudolf Carnap's (1950) views on the plurality of linguistic schemes or frameworks. I'll address a related point later on (Section 6).

[^2]:    ${ }^{4}$ This point was made by Davidson (1973-74, 8-9): "since there is at most one world, these pluralities are metaphorical or merely imagined".

[^3]:    ${ }^{5}$ Goodman, however, stressed that "to say that every right version is a world and to say that every right version has a world answering to it may be equally right even if they are at odds with each other" (SM 144). I will try to explain this point below.

[^4]:    ${ }^{6}$ My thanks to Brian Huschle for forwarding me his doctoral dissertation, in which van Fraassen's analysis and its relation to Goodman's irrealism are discussed.
    ${ }^{7}$ Certainly, a number of people in the Middle Ages thought that their world was populated by witches and evil spirits. While historical accounts of the medieval mentalities do and should stress that fact, we know that the medieval world did not literally contain such denizens. Since Goodman maintains that only true and right versions make worlds (WW 94), he would certainly insist that "medieval world" refers, among other things, to clerics and dukes, but not to witches or spirits. More generally, we may say that the reference of "world", in the schematic sense, is constrained by and answerable to our current scientific standards. My thanks to Catherine Elgin for this suggestion.

[^5]:    ${ }^{8} \mathrm{An}$ important exception, here, is the case of versions that only bear on a determinate region or level of reality. The version which construes light as wave-like, for instance, obviously doesn't exhaust all there is, for light is certainly not enough to make a world. This version is part of a broader cluster of versions within physical science. For this reason, there needn't be a one-one correlation between versions and worlds. In the case just discussed, we should rather say that it is the cluster of versions which refers or answers to a certain world (WW 4).
    ${ }^{9}$ Versions, then, could be understood as involving a "that's all"-clause. My thanks to an anonymous referee for this suggestion.

[^6]:    ${ }^{10}$ Dutra (1999) and Huschle (2000) must be mentioned as exceptions here, as their doctoral dissertations are explicitly focused on Goodman's pluriworldism.

[^7]:    ${ }^{11}$ This is a rather modest way of framing the argument for pluriworldism, for Goodman defends, more ambitiously, that there exists an immense variety of worlds in the sciences, philosophy, and the arts (and hence, many cases of true conflicting versions). I take it, however, that a defence of pluriworldism minimally requires establishing that there are at least two worlds. Thanks to an anonymous referee for drawing my attention to this.

[^8]:    ${ }^{12}$ Note that I omit, for simplicity purposes, the putative cases where a single world would correspond to a "cluster" of versions. Nothing in what follows hinges on this.

[^9]:    ${ }^{13}$ The explosion principle, admittedly, can be challenged in paraconsistent logics. It could be interesting to see what happens with the many-worlds argument in such non-standard frameworks. However, I will leave this question aside here, as Goodman evidently developed his view in accordance with the orthodox assumption that everything follows from a contradiction. Thanks to an anonymous referee for this remark.

[^10]:    ${ }^{14}$ For that matter, contra Cohnitz and Rossberg (2006, 216), I do not think that Goodman actually disagreed with Quine's suggestion that we may pick out one of the conflicting versions at a time, so that we regard the one being used at this time as true and the other(s) as false. This is indeed, precisely, the strategy envisioned here (MM 32). Cohnitz and Rossberg, however, are right when they insist that Goodman did not share Quine's belief that conflicting versions may be true of one and the same world albeit at different times.

[^11]:    ${ }^{15}$ My thanks to Catherine Elgin for drawing my attention to this.

[^12]:    ${ }^{16}$ See, for instance, Boghossian (2006), Chokr (1993), de Donato Rodríguez (2009), Harris (1992), Lynch (1998), and Siegel (1984).
    ${ }^{17}$ It should perhaps be stressed that, among the three challenges that I will consider, the first two are certainly not fatal to Goodman's view, although they might lead one to restrict its scope or weaken it somehow. In fact, only the third objection discussed below really threatens pluriworldism.

[^13]:    ${ }^{18}$ See, especially, WW (109-40) and $R P$ (14-19, 155-59).

[^14]:    ${ }^{19}$ Space does not allow me to survey what "rightness" is supposed to capture exactly. Let it be said, minimally, that Goodman understood this notion as something much more inclusive than truth, for it includes considerations about relevance, force, fit, importance, compactness, comprehensiveness, organizing power (WW 19), but also, "inductive validity, fairness of sample, relevance of categorization" (MM 7).

[^15]:    ${ }^{20}$ For an interesting survey of the relation between Goodman's pluralism and his antirealism, see de Donato Rodríguez (2009).

[^16]:    ${ }^{21}$ For objections to Goodman's "worldmaking" argument, see for instance, Scheffler (1996, 140), Searle (1997, 166), Devitt (1997, 243-44), and O'Grady (2002, 87). A number of replies have been offered, inter alia, by de Donato Rodríguez (2009), Küng (1993), Lynch (1998), and Schwartz (2000).

[^17]:    ${ }^{22}$ Of course, Goodman would here object that it is wrong to consider that realism has a principled advantage-after all, he argued that the view is incoherent. That pluriworldism relies on the rejection of realism is certainly not an issue, if it can be independently shown that the latter view suffers insuperable problems.

[^18]:    ${ }^{23 "}$ "The geocentric and the heliocentric versions, while speaking of the same particular objects-the sun, moon, and planets-attribute very different motions to these objects" (WW 93, my emphasis).

[^19]:    ${ }^{24} \mathrm{My}$ thanks to an anonymous referee for helpful remarks on this point.
    ${ }^{25}$ This is perhaps what Hilary Putnam meant: "I would say that any version we accept as right can be regarded as a description of the world; and I would finesse Goodman's point by conceding that if one chooses to speak in this way, one must add that identity goes soft. In many cases there will be no hard and fast answer to the question which object in one version is 'identical' with an object in another version (if any)" (Putnam 1985, 179).
    ${ }^{26}$ Once again, a given version might be part of a "cluster", so that it refersor allows reference-to other versions than itself. But this is no objection to what I just said, for no rival versions can be part of a same cluster.

