

**A DEFENSE OF A THEISTIC ARGUMENT FROM THE LAW OF
NON-CONTRADICTION**

A Thesis

by

ERIN NAVARRO

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Chair of Committee,	Christopher Menzel
Co-Chair of Committee,	Robert Garcia
Committee Member,	Robert Boenig
Head of Department,	Theodore George

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ABSTRACT

My thesis is that there is a defensible argument for the existence of God from the necessary existence of the Law of Non-Contradiction (LNC). James N. Anderson and Greg A. Welty (A&W) offer such an argument. The purpose of my thesis is to improve and defend some of the key premises of their argument.

One of the key premises which takes up the majority of my thesis is that LNC is a necessarily true proposition. With the help from work by Tuomas E. Tahko and Francesco Berto, I explicate interpretations of LNC which are different from A&W's interpretation and then defend them against some of the main objections in the literature. Specifically, I combine Berto's emphasis on the mutual exclusivity of certain properties with Tahko's notion of "genuinely possible configurations of the world." Some of the objections include ones from Graham Priest, according to whom there are true contradictions in the actual world, and objections that there are abstract inconsistent objects in possible worlds. But I counter objections of the former by using Tahko's strategy to show that Priest's examples are issues of semantics, and for the latter I explicate one half of a dilemma by Ben Martin, according to which the actual world would be an impossible world if there were such inconsistent objects.

The other key premise of A&W's argument is that all propositions are divine thoughts. Colin P. Ruloff argues that there is a better alternative theory of propositions in which propositions are not thoughts. But I counter this by arguing that his proposed theory is consistent with propositions being *divine* thoughts.

NOMENCLATURE

A&W	Anderson and Welty
LNC	Law of Non-Contradiction
M	Metaphysical LNC
SA	Serious Actualism
FPR	Fregean Propositional Realism
STA	Singular Term Argument
NPR	Non-human Propositional Realism

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1 INTRODUCTION

This major section introduces the argument.

In their article ‘The Lord of Non-Contradiction: An Argument for God from Logic,’ James N. Anderson and Greg A. Welty (hereafter, ‘A&W’) offer an argument for the existence of God from the necessary existence of the laws of logic. In their conclusion section, they summarize the argument:

The laws of logic are necessary truths about truths; they are necessarily true propositions. Propositions are real entities, but cannot be physical entities; they are essentially thoughts. So the laws of logic are necessarily true thoughts. Since they are true in every possible world, they must exist in every possible world. But if there are necessarily existent thoughts, there must be a necessarily existent mind; and if there is a necessarily existent mind, there must be a necessarily existent person. A necessarily existent person must be spiritual in nature, because no physical entity exists necessarily. Thus, if there are laws of logic, there must also be a necessarily existent, personal, spiritual being. The laws of logic imply the existence of God. (Anderson & Welty, 2011, 337-8)

A&W use some terms of art. ‘The laws of logic’ are principles of rational thought that govern valid inference.¹ There are at least two notable examples that go back to Aristotle: the Law of Excluded Middle, which is that every statement must be either true or false, and the Law of Non-contradiction (LNC), that no statement can be both true and false. Another term is ‘propositions.’ For now we can think of propositions as those things which are true or false, are typically expressed by declarative sentences, and represent things in certain ways. A possible world is a total way things could have been. For A&W the concept of God is that of a necessarily existent, personal, spiritual being. Such a being would be

¹Ibid., 322.

personal because the only kinds of minds we know about are those of humans and those of animals, and it is doubtful that an animal can entertain the laws of logic. And such a being would be spiritual or immaterial because the laws of logic would be nonphysical.²

As I understand A&W's argument, it has two important parts: The first half purports to show that the laws of logic are necessarily true propositions, and the second half purports to show that all propositions are thoughts. Given the truth of these two premises, the inferences to the conclusion that God exists are relatively uncontroversial.

The view that propositions are effects of mental activity is called *conceptualism*. There have been a few other theistic arguments that utilize it. Robert Adams (1987) suggests one that appeals to possibilities³ and to necessary truths. On the one hand, possibilities and necessary truths exist independently of whether we humans ever thought of them. But on the other, they cannot exist independently of some mind thinking them — conceptualism. But, Adams concludes that these two conflicting, yet independently plausible, views “can both be held together if we suppose that there is a nonhuman mind that eternally and necessarily exists and thinks all the possibilities and necessary truths”.⁴ Alvin Plantinga (2007) called his the argument from ‘intentionality (or aboutness).’

Representing things as being thus and so, being about something or other; this seems to be a property or activity of minds or perhaps thoughts. So

²Ibid., 336, fn. 32.

³Quentin Smith (1994) has a theistic conceptualist argument that appeals to possibilities too, specifically that possibilities are propositions. Smith's version gives us a God who is omniscient, given that we add a premise that links the relation between the divine attribute of omniscient and “the attribute of conceiving everything that God knows.”

A&W's argument, though, and my version of it, does not on its own give us an omniscience being. So, the necessarily existent, spiritual person is compatible with deism. But I can still call the argument theistic because it supplements the overall case for theism.

⁴Ibid., 218.

it's extremely tempting to think of propositions as ontologically dependent upon mental or intellectual activity in such a way that either they just are thoughts, or else at any rate couldn't exist if not thought of. [...] But if we are thinking of human thinkers, then there are far too many propositions: at least, for example, one for every real number that is distinct from the Taj Mahal. On the other hand, if they were divine thoughts, no problem here. So perhaps we should think of propositions as divine thoughts. Then in our thinking we would literally be thinking God's thoughts after him.⁵

Plantinga's argument has one other key premise too: there are too many propositions for humans to produce. One way that A&W's version differs from the other two is that they appeal to the specific set of propositions, namely, logical laws, and they use LNC as a case study. Here is how I formulate A&W's argument:

- (1) The laws of logic are necessarily true propositions.
 - (2) If the laws of logic are necessarily true propositions, then they necessarily exist.
 - (3) So, the laws of logic necessarily exist. (from 1 and 2)
 - (4) All propositions are thoughts. (Conceptualism)
 - (5) So, the laws of logic are necessarily existent, true thoughts. (from 1, 3 and 4)
 - (6) If the laws of logic are necessarily existent, true thoughts, then there is a necessarily existent mind.
- So, (7) there is a necessarily existent mind. (from 5 and 6)

I mostly follow their version. But I argue for the necessary truth of a different *kind* of interpretation of LNC, one that does not fall prey to some of the objections that can be raised against theirs. We will see that the interpretation reveals a deeper, more fundamental principle. It is about the world, objects and their properties, rather than about propositions and their truth. It might even be *why* their version is sound if it is sound. For A&W LNC is a law of logic; for me it

⁵Ibid., 211.

is a law metaphysics. Much has been written about semantic interpretations, but little has been written, in comparison, about metaphysical interpretations. So, I will not argue for their premise that there are logical laws. Here is a statement of my version of A&W's argument:

(M1) LNC is a necessarily true proposition.

(M2) If LNC is a necessarily true proposition, then it necessarily exists.

(M3) So, LNC necessarily exists. (from M1 and M2)

(M4) All propositions are thoughts. (Conceptualism)

(M5) So, LNC is a necessarily existent, true thought. (from M1, M3 and M4)

(M6) If LNC is a necessarily existent, true thought, then there is a necessarily existent mind.

So, (M7) there is a necessarily existent mind. (from M5 and M6)

I use 'M' just to stand for 'metaphysical' because LNC for me is about the world. My defenses of premises M4 to M6 then will be similar to A&W's.

The first major section of my thesis will argue for the truth of M1 and M2, and the other section will argue for the remaining ones.

2 FIRST HALF OF ARGUMENT

In this major section, I defend the first two premises (M1) and (M2), which entail (M3).

(M1) LNC is a necessarily true proposition.

(M2) If LNC is a necessarily true proposition, then it necessarily exists.

(M3) So, LNC necessarily exists. (from M1 and M2)

2.1 LNC is a necessarily true proposition

This section explicates and defends metaphysical interpretations of LNC.

2.1.1 Different kinds of interpretations

LNC is a principle that forbids contradiction. There are four basic kinds of contradictions: syntactic, semantic, pragmatic, and ontological. So, there are four basic kinds of formulations of LNC. Francesco Berto (2006, sec. 1) provides a taxonomy of formulations that reveal the differences in each of their logical structures. For now I will follow his brief descriptions of them and expand on them later when context requires.

(1) Berto begins with *syntactic* formulations. He says that LNC is a linguistic object of a certain *form*.¹ Contradictions are conjunctions of formulae (or pairs of formulae), typically, $\alpha \wedge \neg\alpha$ for any statement α . Thus, a *syntactic* formulation of LNC would be this:

(LNC1) $\neg(\alpha \wedge \neg\alpha)$

¹Ibid., 283.

LNC1 can express the forbidding of formulae of the form $\alpha \wedge \neg\alpha$ in the sense that such formulae are not provable in a proof system. Indeed, LNC1 is a theorem in numerous logical systems, including classical logic and intuitionistic logic.

(2) Berto moves on to *semantic* formulations.² Such formulations appeal to truth and falsity as predicates that apply to statement names. Where $[\alpha]$ is a name for statement α , a semantic contradiction can look like $T[\alpha] \wedge F[\alpha]$, in English ‘Both α is true and α is false.’ A semantic LNC would be:

$$(LNC2a) \neg(T[\alpha] \wedge F[\alpha])$$

The statement ‘It is raining’ is not both be true and false at the same time. LNC2a can express the forbidding of semantic contradictions in the sense that such contradictions are assigned F in every row of a truth table. Indeed, statements of the form $\neg(\alpha \wedge \neg\alpha)$ are tautologies in the semantics of classical logic.

For another semantic formulation, Berto observes that it is widely accepted by both supporters and critics of LNC that falsity is truth of negation, that is, they accept the equivalence $F[\alpha] \leftrightarrow T[\neg\alpha]$. Hence, we get the following being equivalent to (LNC2a):

$$(LNC2b) \neg(T[\alpha] \wedge T[\neg\alpha])$$

‘It is not the case both that α is true and that not- α is true.’ For instance, ‘It is raining’ and ‘It is not raining’ is not both be true at the same time.

(3) *Pragmatic* formulations of LNC involve the mental states of the acceptance and rejection of a statement. Berto defines ‘acceptance’ as this: Rational agent x *accepts* α just in case x believes that α . He introduces a statement operator ‘ \vdash_x ’

²Ibid., 283.

for an intuitive reading of ‘(rational agent) x accepts that.’³ So, one pragmatic contradiction is $\vdash_x \alpha \wedge \vdash_x \neg\alpha$. It would seem contradictory of someone to both rationally accept that ‘It is raining’ and accept that ‘It is not raining.’ So, we have

$$(LNC3a) \neg(\vdash_x \alpha \wedge \vdash_x \neg\alpha)$$

‘It is not the case that both (rational agent) x accepts α and accepts $\neg\alpha$.’ The source of forbidding would come from our concept of rationality or acceptance.

In addition, x *rejects* α just in case x positively refuses to believe α . If we add another sentential operator ‘ \dashv_x ’ to mean ‘(rational agent) x rejects that’, then we have another pragmatic LNC:

$$(LNC3b) \neg(\vdash_x \alpha \wedge \dashv_x \alpha)$$

‘It is not the case that both x accepts α and rejects α .’ For example, it is contradictory of someone to both rationally accept and reject that ‘It is raining.’

(4) Finally, *ontological* (or metaphysical) formulations appeal to *objects-cum-properties* or states of affairs. States of affairs are entities constituted by objects and properties. The object Socrates and the property *being wise* constitute the state of affairs of *Socrates’ being wise*, and it obtains or not. One way to think of a contradictory state of affairs or an inconsistent object would be to think of something that both had a specific property and lacked that property, which can be formulated as $\exists x(\alpha(x) \wedge \neg\alpha(x))$. For example, this billiard ball is not green all over and not green all over at the same time. So, one can forbid an ontological contradiction like this:

$$(LNC4a) \forall x \neg(\alpha(x) \wedge \neg\alpha(x))$$

³Ibid., 284.

Berto then adds one more formulation. We can shift into second order logic in which we quantify over properties too,

$$(LNC4b) \forall x \forall P \neg (Px \wedge \neg Px)^4$$

‘For any individual x and property P , it is not the case that both x has P and x does not have P .’ *Being green all over* does not at the same time belong to this billiard ball and not belong to this billiard ball. This forbidding would not be due to some logical system or some notion of rationality; it would have to come from the structure of the world.

I think that as an ontological principle LNC constrains the structure of reality. It states a restriction on *things* rather than on statements or mental states. On the other hand, as a logical or pragmatic principle, it governs language or our thoughts. If it does not even do that, then it is merely a principle that holds in certain models, that is, logical systems like classical logic, intuitionistic logic, etc., and it has no bearing on mind-independent reality.

2.1.2 LNC is true

I begin by following Tuomas E. Tahko for the truth of something like LNC4a and LNC4b in the actual world. Berto (2006, 292) observes that Aristotle did not discuss the question of whether LNC was true in his *Organon*, which are his writings on logic. Rather, he discussed it in his *Metaphysics*. For him, such a question will

⁴There is a possible worry here. Proponents of LNC want a formulation of LNC to entail that it is not the case that both something has a property P and everything does not have P , $\neg(\exists x Px \wedge \neg \exists x Px)$. The \wedge operates on two compound propositions. But LNC4b seems to not entail that because LNC4b’s \wedge operates on an atomic proposition on the left, $P^1 x_1$ or $P^2 x_1, x_2$. This assumes that propositions have a logical structure which is analogous to sentences in a formal language.

But if such is the case, then the logical operators are truth functional, that is, the truth values of all compound propositions are solely determined by the truth values of the atomic ones. So, if LNC is true of any atomic proposition $P^n x_1 \dots x_n$, then it is also true of all propositions α . Then we have LNC in the general case: for any proposition α , $\neg(\alpha \wedge \neg \alpha)$. But that entails what we want, $\neg(\exists x Px \wedge \neg \exists x Px)$, because $\exists x Px$ is a proposition.

be answered by ontological rather than merely formal, logical means. The first formulation in Book IV of *Metaphysics* is like LNC4b:

[T]he same attribute cannot at the same time belong and not belong to the same subject and in the same respect. (Aristotle, 2014, 3418)

There are constraints on what kind of properties a particular kind of thing can and cannot have. For example, someone cannot both win and not win a game of chess at the same time. The property of *being a winner* cannot simultaneously belong and not belong to that person in the same game. There are constraints at the basic level of physical reality too. For example, an electric charge cannot at the same time belong and not belong to the same subatomic particle and in the same atom. Indeed, discussion of the LNC4 working at this fundamental physical level is a good place to start. For particles form atoms, and atoms are the smallest unit of matter. Atoms are the basis for every other physical object in the universe. Even if it is obvious that there is consistency on the macrophysical level, that does not mean that such consistency could not have emerged from microphysical inconsistency.

Tahko (2009) uses electric charge as a case study, and I follow his exposition of it. There are two kinds of charges of opposing polarities: positive and negative. An electron has a negative charge, and a proton has a positive one. Both charges are of the same magnitude. Similar charges repel. But dissimilar charges attract. Electrons and their energy levels conform to the fundamental physical law *Pauli Exclusion Principle* (PEP), which states that two electrons in an atom cannot have the same quantum number at the same time. It keeps atoms from collapsing. Suppose that there are two electrons in the same orbit. Then they have the same values for the size of the orbital n , the shape of the orbital l , and the orientation

in space of the orbital ml . But by the principle, the values for the spin m_s must be different. So, they have opposite ‘half-integer spins,’ $1/2$ and $-1/2$. More generally, PEP applies to all particles of half-integer spin called ‘fermions.’ An electric charge can be considered as a property of an object. So, Tahko (2009, 35) infers, it is an *exhaustive* property, that is, the actual laws of physics require that at any given time an electron must have it or not.

Tahko (2012, 410) indicates that apart from the fact that there is no observed violation of PEP, atoms would not hold together if the same particle could simultaneously both have and not have a charge. They would collapse.⁵ He entertains the idea that even if they somehow could hold and not hold together at the same time, they would be unstable and all macrophysical objects then would both exist and not exist.⁶ I think the idea is that a macrophysical object’s existence depends on the holding of its constituent atoms. So, if they do not hold then the object would not exist. But macrophysical existence requires stability. He gives an example of a glass bottle.⁷ A particular glass bottle of beer b exists because it has a stable macrophysical structure. Such macrophysical properties including *being rigid, containing an alcoholic beverage*, etc. But these properties exist because there are certain stable microphysical structures. He concludes that b has a stable macrophysical structure (in part) because certain fundamental laws of physics hold, that is, PEP.

PEP is not an instance of LNC4b, but it can be thought of as a restricted version of it, because LNC4b is about objects of any kind while PEP is about objects of a certain kind. So, we will have to look elsewhere on our quest to find a contradiction in the world.

⁵Ibid., 412.

⁶Tahko (2009, 35)

⁷Tahko (2015, 111)

2.1.2.1 Against LNC

Before we embark on such a quest, some key distinctions are in order. Ben Martin (2014, 62) distinguishes three related positions in the literature.

Dialetheism: There are true contradictions at the actual world

Absolutism: There are true contradictions at a metaphysically possible world

Paraconsistency: Explosion is invalid

In classical logic (and intuitionist logic) the logical consequence relation is *explosive*, that is, it validates the logical rule $\alpha, \neg\alpha \vdash \beta$. The latin name of this rule is *ex contradictione quodlibet*, that is, roughly, any statement follows from a contradiction. On the other hand, paraconsistent logics are *not* explosive. If we are in a situation in which the information that is available is not consistent, then the consequence relation does not explode into *triviality*. The view that every statement is true is *trivialism*. But many paraconsistent logics validate LNC1, $\vdash \neg(\alpha \wedge \neg\alpha)$, even though they invalidate explosion.

Let's see how these views relate to each other. A paraconsistent logician does not have to be an absolutist or a dialetheist. Such a logician can accept non-explosion if they think that the logical consequence should also preserve information content in addition to truth. On the other hand, a dialetheist or absolutist should be a paraconsistent logician to avoid being a trivialist. Dialetheism is distinguished from trivialism because dialetheism is a particular affirmative statement, that is, that there is at least one actually true contradiction, a dialetheia, rather than a universal affirmative statement, that is, that all contradictions are true. A trivialist must be a dialetheist (because if every statement is true, then at least one contradiction is). Finally, a dialetheist must be an absolutist, but an

absolutist need not be a dialetheist because the actual world is a metaphysically possible one.

2.1.2.1.1 Metaphysical dialetheism

We can think of different kinds of dialetheias: semantic dialetheias $T[\alpha] \wedge F[\alpha]$, metaphysical dialetheias $\exists x(\alpha(x) \wedge \neg\alpha(x))$, pragmatic dialetheias $\vdash_x \alpha \wedge \vdash_x \neg\alpha$, etc. So, minimally, *semantic dialetheism* is the view that there are semantic dialetheias and *metaphysical dialetheism* is the view that there are metaphysical dialetheias. But there is more to this distinction.

Edwin Mares (2004) first introduced it. He expresses it this way:

The metaphysical dialetheist holds that there are aspects of the world (or of some possible world) for which any accurate description will contain a true contradiction. Semantic dialetheism, on the other hand, maintains that it is always possible to redescribe this aspect of the world, using a different vocabulary (or perhaps vocabularies), consistently without sacrificing accuracy.⁸

For the metaphysical dialetheist, a dialetheia is in the language of an accurate description of the world, and there is a fact in the world that makes the dialetheia true. In contrast, for the semantic dialetheist, any such state of affairs or fact can be accounted for by using a different language, one that is just as accurate and complete in its description of the world and yet is consistent. Mares observes the fact that paraconsistent logicians usually use a consistent metatheory to describe their logics.⁹ So, a semantic dialetheist can use a consistent metalanguage while acknowledging that there is a true contradiction in the object language.

Tahko (2009, 38) infers from this that by semantic dialetheism, a contradiction is true in a language or model. On the other hand, by metaphysical dialetheism,

⁸Ibid., 270

⁹Ibid.

a contradiction is true in the world. Tahko (2014, s. 1, 2) explains these two different senses of ‘truth.’ A truth in a model or language is a statement that is true when interpreted in a particular language. This kind of relative truth is not a property of statements. Aristotle’s other law, the Law of Excluded Middle, is not true relative to intuitionistic logic, but it is true relative to classical logic. But an *absolute truth* is a statement that is unconditionally true in the world. It is a property of statements. ‘Snow is white’ has the property of *being absolutely true* just in case snow is white – in the world, unconditionally.¹⁰ (This is an instance of Alfred Tarski’s truth schema, where there is an apparent relation between language and the world.)

The most prominent dialetheist is Graham Priest. He is at least a semantic dialetheist but is neutral with respect to the metaphysical kind: “Mares takes me to be a metaphysical dialetheist, but *In Contradiction* is, in fact largely neutral on most of the relevant issues” (Priest, 2006, 302). Nevertheless, he attempts to explicate the conditions that must hold for one to be a metaphysical dialetheist:

To be a metaphysical dialetheist, one must suppose that it makes sense to talk about reality itself, as opposed to what is said about it. That is, one must suppose that

1: There is an extra-linguistic reality

Next, this reality must comprise things that are propositional in some sense, or the talk of its being consistent or inconsistent would make no sense. (Thus, if reality were just constituted by objects such as tables and chairs, saying that it was consistent or inconsistent would be a simple category mistake. [...]) So we must have that

¹⁰Perhaps, it can be maintained that to say that ‘Snow is white’ is true is semantically equivalent, that is, has all and only the same information, to saying that snow is white. So, the former can be reduced or deflated to the latter. Stoljar & Damnjanovic (2014) say that this is an example of a deflationary theory of truth. According to such a theory, we can sensibly ascribe truth to statements without positing a property of *truth*.

But the two statements are *not* semantically equivalent. They contain different information. The former states that there is a sentence that has the property *truth* while the latter states that there is frozen atmospheric water vapor that has the property of *whiteness*.

2: Reality is constituted by facts

or by fact-like entities such as objects-cum-properties. Even given 2, there is still nothing consistent or inconsistent simply in a bunch of facts. There must therefore be more to the matter than this; there must be something within the structure of facts that corresponds to negation in language. It must be the case that

3: There are polarities within facts

That is, if f^+ is a possible fact, say one that would make α true, there must be a corresponding one, f^- , that would make $\neg\alpha$ true. (Priest, 2006, 300)

Metaphysical dialetheism then amounts to the view that for some f both f^+ and f^- obtain. Since f^+ would *make α true*, this kind of dialetheism requires a theory of truth, such as a truthmaker theory. The intuition behind a truthmaker theory is that truth depends on what exists. If ‘Socrates is human’ is true, then there is a fact in the world that makes it true, that is, *Socrates’ being human*, which presupposes the existence of the constituent object Socrates. A truthmaker theorist can also be a truthmaker *maximalist*, according to whom *every* truth has at least one truthmaker. But then there must be a negative fact f^- that makes $\neg\alpha$ true. Absences, lacks, voids and omissions are candidates for being negative facts (or constituents thereof). If ‘That hole in the ground is small’ or ‘Beethoven is deaf’ is true, then there should be a negative fact, like *The ground’s being such that it has a small void of solid mass* or *Beethoven’s lacking the ability to hear*.

2.1.2.1.2 Negative facts

But there is a strong intuition against the existence of negative facts. Bertrand Russell introduced the concept of a truthmaker as central to his *logical atomism*, in which the most basic facts are atomic ones, that is, facts in which one particular object having a property (for example, *This particular object’s being blue*.) or multiple objects standing in a relation make atomic statements (‘This is blue.’) true.

But he acknowledged:

There is implanted in the human breast an almost unquenchable desire to find some way of avoiding the admission that negative facts are as ultimate as those that are positive (Russell, 1919, 4).

George Molnar (2000) offers some reasons why we should follow this intuition. I go along with his exposition. He distinguishes what they are purportedly and what we think they are not: absences are states of the world, first-order, and causally relevant; but they are *not* things, properties, or what he calls ‘causally operative.’¹¹ On the other hand, positive facts can be reduced and do not require a unique category in our ontology. They are not anything “over and above their constituents,” which is (first-order) things, properties and relations. But negative states of affairs are a different kind of entity from positive ones. So, Molnar infers that they cannot have things, properties and relations as constituents because such things, properties and relations do not exist.¹²

Another reason Molnar (2000, 77) gives for thinking that absences do not exist is that they are radically acausal. He qualifies: they are not acausal unconditionally, because they are causal in the sense of *causally explanatory*. But such causality is a *subjective*, rational relation and is context-dependent. So, if they exist, then they do not exist independently of us. The reason that there are explanations is because we want to know answers to questions. He observes, the content of our background knowledge and our pragmatic interests in bringing about and preventing events are two major factors that determine which questions and which criteria of good answers get selected.¹³ Molnar uses this example: ‘Lack of air caused him to suffocate’ can be an explanans in a certain context of explanation

¹¹Ibid., 76.

¹²Ibid., 77.

¹³Ibid., 78.

and it may well be a good answer. On the other hand, 'Lack of poison caused him to remain alive' would not be a good explanans in the same context.

But Molnar identifies that absences are *acausal* in a different kind of causality, that is, *causally operative*. For him, this causality is an *objective* relation. 'Event A operatively causes event B' entails 'The objects involved in A and B have certain powers.'¹⁴ The relatum makes a difference to the outcome of a causal process. To illustrate, here is my example. Suppose that I want to start a primitive fire in the wilderness by using a hand drill. Then that it is a particular rainy day is relevant. If I cannot form an ember as the spindle tip glows red or I cannot sustain a flame as the ember is in a tinder bundle because the materials are too wet, then I will not succeed in getting a fire. The rain is causally operative in my not succeeding. But negative facts would not be causally operative. Molnar indicates that only a *something* can be either the starting point or the terminus of a causal processes; a *nothing* cannot.¹⁵ He then appeals to the Eleatic Stranger's reality test¹⁶: to be is to be powerful, to make a difference in the world. Plato's Stranger in the *Sophist* tells Theaetetus his criterion for existence:

I'm saying that a thing really is if it has any capacity at all, either by nature to do something to something else or to have even the smallest thing done to it by even the most trivial thing, even if it only happens once. I'll take it as a definition that *those which are* amount to nothing other than *capacity*. (Cooper & Hutchinson, 1997, 269, s. 247e)

So, absences fail such a reality test.

Another reason to think that absences do not exist is that they are not perceived. Molnar (2000, 79) offers an example of a possible direct perception of a

¹⁴Ibid.

¹⁵Ibid., 77.

¹⁶Ibid., 79.

negative state of affairs. He has us consider two figures of circles in which the first one has a dot in the center of it and the second one is empty of any other figures.¹⁷ For the first one, we non-inferentially perceive the positive state of affairs of *The dot's being in the circle*. Likewise, for the second one, according to the story, we non-inferentially perceive the negative state of affairs of *The circle's being empty of dots*, but *given that we look for a dot*. So, there is a negative fact that is just as perceivable, and perceivable in the same sense, as a positive one. So, according to the argument, we have reasons to believe in the existence of negative facts which are the same for believing in positive ones.

But Molnar observes that the first circle is not only empty of dots; it is also empty of squares, triangles, crosses, etc.¹⁸ So, there are indefinitely many negative facts that occupy the same location in visual space: *The circle's being empty of squares*, *The circle's being empty of triangles*, and so forth. We do not non-inferentially perceive all of them because we are not looking for squares and triangles too. Conversely, we are looking for a dot in the left circle. So, Molnar concludes that our perception of the circle being empty of dots is *inferential*.¹⁹ We infer to such a perception from that we are looking for the presence of a certain kind of thing. So, the perceptions of the positive and negative states of affairs are not the same kind of perceptions: the former is non-inferential and the latter is. So, the alleged negative state of affairs is not an example of a possible direct perception of a negative state of affairs.

So, we have some good reason to follow our intuition to reject negative facts. But Priest's third condition on metaphysical dialetheism requires it. So, we need a positive case for metaphysical dialetheism.

¹⁷Ibid., 79.

¹⁸Ibid., 80.

¹⁹Ibid.

2.1.2.1.3 A case for metaphysical dialetheism

The main motivations for dialetheism is to render certain semantic paradoxes harmless. Consider the Liar – a paradox of self-reference:

(L) (L) is false.

(L) refers to itself. Is it true or false? Suppose that (L) is true. Then its content matches reality. So, it is false. But now suppose that (L) is false. Then this just is its content. So, it is true. If we accept the Law of Excluded Middle, then (L) is both true and false, which is a dialetheia. This conflicts with LNC2. One response is to reject the Law of Excluded Middle; another is the dialetheist's: accept the truth of the dialetheia. So, the paradox is accepted but without explosion.

There are other paradoxes that might be taken to be counterexamples to LNC4. But if such examples can all be given a satisfactory explanation with regard to semantic but not metaphysical dialetheism, then we are rationally free to reject metaphysical dialetheism. Priest (2006, ch. 11-12) presents some paradoxes concerning change which might act as sources of true contradictions in the world. Tahko (2009) responds to most of these arguments, and I follow his lead.

2.1.2.1.4 Priest's paradoxes involving change

In the first of the two chapters on change, Priest begins by offering some ordinary examples that includes instants of change. The first such instant is one at which he uses a pen that both touches a paper and does not touch that paper:

As I write, my pen is touching the paper. As I come to the end of a word I lift it off. At one time it is on; at another it is off (that is, not on). Since the motion is continuous, there must be an instant at which the pen leaves the paper. At that instant, is it on the paper or off? [...]

The trouble is that there seems to be no good reason to say one rather than the other. It seems as much on as off, and as much off as on. [...] [T]here is, presumably, a last instant at which the distance between the point of my pen and the paper is zero, but no first point at which it is non-zero.²⁰

So, we should say that it both does and does not touch the paper. (Priest, 2006, 160) suggests that maybe we can identity ‘being on’ with ‘being zero distance from,’ in which case the pin is on the paper during the instant at which it leaves the paper. But he thinks this will not do because when an arrow is fired into the ground, at the instant of impact, before penetration, the arrow is zero distance from the ground, yet he asks, “is the arrow on the ground?”²¹

I think it is more intuitive to define ‘being on’ with ‘being zero distance from and being supported by the surface of’, in which case the pin is on the paper at the relevant moment, and the arrow is, seemingly, not on the ground at its relevant moment. So, we do not have to resort to saying that the pen both touches the paper and does not touch it. Tahko (2009, 40)’s solution is to merely observe that just because “we can define ‘touching the paper’ in terms of the electrical repulsion between the pen and the paper (or something similar)” does not mean that there is a contradiction in the world.

The second example (Priest, 2006) gives is a phenomenological one:

For days I have been puzzling over a problem. Suddenly the solution strikes me. Now, at the instant the solution strikes me, do I or do I not know the answer? [...] Before, I did not know the answer; after, I did. Moreover, one cannot suppose that in this case there is some tie-breaking ulterior fact. My epistemological state is all there is, and that is symmetrical. It makes little sense to suppose that I either did or did

²⁰Ibid., 160.

²¹Ibid.

not determinately know the answer at the instant of change, though I am unaware which.²²

Here again I think indeterminacy is in our semantics. What does it mean to 'know the answer'? If Priest believes that the solution is indeed the solution at the instant it strikes him, then he believes the answer. Knowledge is justified true belief. So, the answer is a belief. The answer is true too. But is he justified at that moment to believe the answer? There are certainly different definitions of epistemological 'justification.' Some may include that some time should lapse before a person is justified. But some may not. If we have good reason to think that we can have non-inferential and immediate knowledge, then we can say that Priest is also justified at the instant he believes it. So, we do not need to resort to saying that Priest both does and does not know the answer at the instant the solution strikes him.

And here's his last example of the same kind:

I am in a room. As I walk through the door, am I in the room or out of (not in) it? To emphasize that this is not a problem of vagueness, suppose we identify my position with that of my centre of gravity, and the door with the vertical plane passing through its centre of gravity. As I leave the room there must be an instant at which the point lies on the plane. At that instant am I in or out? Clearly, there is no reason for saying one rather than the other. (Priest, 2006, 161)

Once more, this can be explained by an issue concerning language. Tahko (2009, 41) identifies the vague phrase: 'being in a room.' If in the definition we include the doorway, then we can say that Priest is in the room. If we exclude it, then he is not in the room. But because we are free to stipulate either way shows, according to Priest, that being in or not being in has no better claim than the other: the change is intrinsically contradictory.

²²Ibid., 161.

But, Tahko observes, we lack a specific definition for ‘being in a room’ because in ordinary contexts there is no need to define it as precisely as Priest demands.²³ If we needed such precision, then we can determine it with such. Tahko refers to an example in soccer. There are methods in place, with assistance of electronic devices, to determine when a soccer ball has “completely crossed the goal line in between the goal-posts and underneath the crossbar.”²⁴ (The International Football Association Board even officially approved the use of goal line technology.²⁵) So, there is no reason why we cannot determine whether Priest is in a room. There is vagueness alright, contra Priest, but such vagueness is in our semantics, not in the world.

2.1.2.1.5 Priest’s paradox involving motion

Priest offers another kind of paradox. Aristotle thinks Zeno developed four paradoxes against the existence of motion. Of these Priest (2006, 174) thinks that Zeno’s arrow paradox is the most profound example of a true contradiction. The moving arrow concerns local motion, which is the most basic kind of transition. Here’s how Aristotle states it:

Zeno’s reasoning, however, is fallacious, when he says that if everything when it occupies an equal space is at rest, and if that which is in locomotion is always in a now, the flying arrow is therefore motionless. This is false; for time is not composed of indivisible nows any more than any other magnitude is composed of indivisibles. (Aristotle, 2014, 890, s. 239b.30)

The third is that already given above, to the effect that the flying arrow is at rest, which result follows from the assumption that time is composed of moments: if this assumption is not granted, the conclusion will not follow. (Aristotle, 2014, 891, s. 239b.30)

²³Ibid.

²⁴Ibid.

²⁵“Greater use of goal-line technology,” FIFA.com (2016)

Nick Huggett (2010, sec. 3.3) explains the paradox this way. Take into consideration an arrow which appears to be moving. Then it either travels some distance, that is, it changes its location, during that moment or does not. For Zeno, the arrow is at rest during the instant it occupies an equal space because there are no smaller units of time than instants that would allow the arrow to change location. But the whole period of time over which the arrow is allegedly in motion consists of only instants. So, the arrow is at rest during each such instant. So, the arrow cannot be moving at any time. So, it does not travel some distance during the moment.

Aristotle's own solution above to the paradox is to deny that time is made up of indivisible instants.²⁶ So, either time consists of divisible instants or not. If it does, then either there is velocity at these divisible instants or not. On the other hand, if time does not consist of divisible instants, then instants in time do not exist. Frank Arntzenius (2000) lays out three views which are compatible with Aristotle's denial solution:

- (i) [T]he "at-at" theory, according to which there is no such thing as instantaneous velocity, while motion in the sense of the occupation of different locations at different times is possible,
- (ii) the "impetus" theory, according to which instantaneous velocities do exist but these are only contingently and causally related to the temporal developments of positions,
- (iii) the "no instants" theory, according to which instants in time do not exist, and hence instantaneous velocities do not exist, while motion, in the sense of different areas occupied during different time intervals, is possible.²⁷

By (i), there is nothing more to motion than the occupation of different locations at different times. Zeno's arrow occupies succeeding points in space at different

²⁶Ibid.

²⁷Ibid., 187.

times (Huggett, 2010). This is a relational or *extrinsic* rather than an intrinsic view of motion in that motion at a given time exists *only in relation to* other times. Theorists of (i) agrees with Zeno that there is no instantaneous velocity. So, at each instant the arrow is at rest. And they agree that instants constitute time. So, the arrow makes no progress at each individual instant. *But* they disagree with Zeno in that the sum of the instants is greater than its parts. So, there is motion over an interval, a sequence of instants. Zeno's puzzle is resolved. This theory is an instance of what Priest called a "cinematic account of change." It is so named because, as Chris Mortensen (2015, sec. 6) identifies, change is "like a succession of stills in a film only continuously connected."

Arntzenius (2000, 190) identifies some problems with this stripped down motion. First, to use an example similar to his, it is intuitive to say that this bus is moving at this instant, that the whole state of the bus at this instant includes its moving. Second, there are sequences of states which are indistinguishable from corresponding rest-states but which are not motion-states. Priest gives this short example: "If God were to take temporal slices of an object at rest in different places and string them together in a continuous fashion, he would not make the object move" (Priest, 2006, 174). And third, Tahko (2009, 41-42) indicates that we measure the velocity of an object at a time from the locations of the object at different times; yet, this does not imply that such velocity can fully be reduced to such locations at such times.

Now consider theory (ii). By (ii), motion is an intrinsic property. It is intrinsic in the sense that it cannot be reduced to times and locations. This is an *intrinsic* account of motion because a body moves only because of the properties of the body at the instant. So, there does not exist a distinction between a body which is moving and one that is stationary one at any given instant. The moving body

has a *tendency or potential* to move in a certain direction while the stationary one does not. So, the property of motion is also a kind of dispositional property. A vase is disposed to *being fragile*. If it *were* to fall on a hard surface from a sufficient height then it *would* break in normal circumstances. At any instant a billiard ball *a* moves in a specific direction because it has an intrinsic velocity, and this velocity is part of the intrinsic state of *a* at a time *t*. Arntzenius (2000, 201) concludes that the main worry about this view is from the principle of theoretical simplicity or parsimony. Aristotle states it in Book I of *Posterior Analytics*:

Let that demonstration be better which, other things being equal, depends on fewer postulates or suppositions or propositions. (Aristotle, 2014, 322)

According to Arntzenius, we must add a further postulate, which is a quantity called “intrinsic velocity,” to our ontology and add a natural law that equates the value of this quantity with the value of the velocity, where this other velocity is the ratio of distance and time. Other things being equal, we may not want to add it if we think parsimony is a constraint on a metaphysical theory.

Priest’s solution is to accept the *dialetheia* that the arrow is both where it is and where it is not at the same time. He opts for Georg Hegel’s view of motion, which Hegel attributed to Zeno (Priest, 2006, 175). It is an intrinsic view too. Here is how Hegel explains it:

Something moves, not because now it is here and there at another now, but because in one and the same now it is here and not here; because in this here it is and is not at the same time. One must concede to the dialecticians of old the contradictions which they pointed to in motion; but what follows from them is not that motion is not but that it is rather contradiction as *existent*. (Hegel, 2010, 382)

Something moves because at one and the same moment it is here and not here. If a body *a* is in motion, then it will be in different places at different times *and* it will both occupy a location and not occupy it at that time. (Priest, 2006, 175) says that this second inconsistent, but necessary condition on motion is needed because without it, *a* would not be distinguishable “from a body occupying different places at different times, but at rest at each of these instants.” And an intrinsic view of motion requires such a distinction.

However, there is a strong intuition that rest and motion are mutually exclusive states of an object. Also, another kind of worry is from explanatory parsimony. Priest affirms that if something is in motion, then it has non-zero velocity. And he affirms that if something has non-zero velocity, then it is in motion.²⁸ But Mortensen (2015) argues that “if non-zero (speed or acceleration) is necessary and sufficient for motion, then the extra element of inconsistency would seem to be explanatorily otiose, since there is no need to add the extra element of inconsistency in order to constitute motion.”

Moreover, Priest does not mention the impetus theory. He only argues against the at-at or cinematic theory, and argues for his intrinsic one. Even if we ignore any other difficulties of Priest’s account, Tahko (2009, 42) concludes that “the changes required by the impetus theory are less fundamental than the ones required by Priest’s theory,” and so, on balance, the impetus theory is preferable to Priest’s theory. So, a proponent of LNC4 need not be committed to an inconsistent theory of motion.

²⁸Ibid., 298, fn. 28.

2.1.2.1.6 Interpretations from quantum mechanics

Another kind of possible challenge to LNC4 that Tahko mentions comes from quantum mechanics.

First, there is an incompatibility between standard quantum mechanics and classical logic generally. Bueno & Colyvan (2004, 159-160) provide a simple example. By quantum mechanics, any electron e has a spin in a given direction x . Recall that earlier we said that electrons are fermions, that is, they have a spin of either $1/2$ or $-1/2$. They say that we can name the spin of e in the x direction by e_x . Then this is a true disjunction:

$$e_x = 1/2 \vee e_x = -1/2$$

Now assume that x and y are *distinct* directions and that we measured e 's spin in x and yielded that ' $e_x = 1/2$ ' is true. Then because the other disjunction ' $e_y = 1/2 \vee e_y = -1/2$ ' is true too, we can introduce the conjunction:

$$(i) e_x = 1/2 \wedge (e_y = 1/2 \vee e_y = -1/2)$$

And by the distributive laws of classical logic, specially the distributivity of conjunction over disjunction, $\alpha \wedge (\beta \vee \gamma) \leftrightarrow (\alpha \wedge \beta) \vee (\alpha \wedge \gamma)$, it follows from (i) that

$$(ii) (e_x = 1/2 \wedge e_y = 1/2) \vee (e_x = 1/2 \wedge e_y = -1/2)$$

'Either the spin of e in x is $1/2$ but in y is $1/2$ or the spin of e in x is $1/2$ but in y is $-1/2$.' But Bueno and Colyvan point out that by standard (Copenhagen) quantum mechanics in which Heisenberg's indeterminacy principle holds, this is false because it is impossible to measure the spin of an electron in distinct directions

at the same time.²⁹ So, the classical distributive laws do not hold at the quantum level.

But others go so far as to claim that LNC too is incompatible with standard quantum mechanics. There are superpositions in quantum mechanics that might involve contradictions. Schrödinger's cat paradox involves a state of superposition in which the cat is simultaneously both dead and not dead (that is, alive). Arenhart & Krause (2014) argue that it is difficult to make sense of the claim that there are contradictions in the case of quantum superpositions and that from a *metaphysical* point of view, there are obstacles to such a suggestion.

Still, as Bueno & Colyvan (2004, 160) indicate, one can opt for an alternative interpretation of quantum mechanics, for example, a Bohmian interpretation, and reject standard quantum mechanics. The Bohmian interpretation does not imply that reality is in violation of LNC. After all, as Cushing (1994) argues, Bohm's interpretation equally well explains the observational data. The Copenhagen view is now standard because it happened to appear first — an historical accident. Moreover, Tahko (2009, 43) concludes, "Presently, it is not even entirely clear that quantum mechanics can be understood to pose a challenge to LNC."

So, until more information comes out that might call LNC4 into question, we are free to reject metaphysical dialetheism. So, LNC4 is actually true.

2.1.3 LNC is necessarily true

But what does it mean to say that LNC4 is *necessarily* true and not merely actually true? Here is a provisional definition of necessary truth that is similar to Tahko (2014, 239)'s metaphysical definition of logical truth:

(ML) A statement is necessarily true if and only if it is true in every

²⁹Ibid.

genuinely possible configuration of the world.

ML preserves the Aristotelian intuition of a statement's being true if its content 'corresponds' appropriately with reality. A configuration of the world is genuinely possible if it "could have turned out to correspond with the world."³⁰

With ML at his service, Tahko weakens Aristotle's own formulation of LNC4 by adding a qualification:

The same attribute cannot at the same time belong and not belong to the same subject in the same respect and in the same domain. (Tahko, 2014, 239)

The domain of the qualification 'in the same domain' is the collection of genuinely possible configurations of the world.

Tahko argues that genuine possibilities should be understood in terms of *metaphysical* possibilities.³¹ What is it that assures the the correspondence between the structure of reality and any given possible world? For Tahko, the metaphysical modal space consists of all possible configurations of the world and nothing else. Of course, there are *non*-genuinely possible configurations of the world in wider modal spaces. He illustrates this with an example of an a posteriori necessity. It is logically possible for gold to *fail* to be the element with atomic number 79, but is not metaphysically possible. Saul Kripke (1980, 116) called this kind of statement a "theoretical identification." Edward Zalta (1988, 72) too observes that "Identity statements involving rigid names and descriptions are examples of necessary truths that are not logically true." So, Tahko concludes, there are necessary constraints on the structure of reality, but logical necessity fails to capture it.³²

³⁰Ibid.

³¹Ibid., 241.

³²Ibid.

2.1.3.1 Against the necessary truth of LNC

Now recall absolutism, the view that there are true contradictions at a metaphysically possible world. Absolutism is incompatible with the LNC as necessarily true. Luis Estrada-González (2014) argues for absolutism. Specifically, his case includes the claim that the validity of the Aristotelian LNC does not prevent the existence of dialetheias. He presents an argument inspired by Tahko with the conclusion that realist dialetheism (his name for metaphysical dialetheism) is impossible. But before he does that, he states Berto's definition of negation, which is built upon Grim's. Let's look at Grim's and then Berto's definitions.

2.1.3.1.1 Berto's exclusion-expressing tool

Recall that a contradictory state of affairs or an inconsistent object would be one in which something both had a specific property but also lacked that property. Or it can be something that both had a specific property but also had a property that is *incompatible* with the first. In this second case, the *material incompatibility* or *material exclusivity* of the properties is what is fundamentally doing the excluding, not the negation statement operator of logic. Berto (2008, 180) uses the term 'material' because the relation stems from the *material content* of the properties. The relation is not merely logical in the sense of 'formal.'

Grim (2004, sec. 4) uses this second case to characterize negation in terms of the intuitive, primitive notion of exclusion. The *exclusionary class* of a property P is the collection of all properties that are materially incompatible with P .³³ He introduces the symbol " not ," and so something is $\text{not-}P_1$ if and only if it has some property P_2 , that is materially incompatible with P_1 . So, we can enter Grim's LNC version in Berto's taxonomy:

³³Ibid., 63.

(LNC4c) $\forall x \forall P_1 \forall P_2 [(P_1 \wedge P_2 \text{ are incompatible}) \rightarrow \neg(P_1 x \wedge P_2 x)]$

“For any individual x , property P_1 and property P_2 , if P_1 and P_2 are incompatible then it is not the case that both x has P_1 and x has P_2 .”

Berto (2008) builds off of Grim’s $\text{\textcircled{N}}$, to introduce his exclusion-expressing tool NOT. We all, including dialetheists, have an intuition of material incompatibility.³⁴ Our “apprehension of incompatibility is more primitive than the use of negation.”³⁵ Huw Price offers an evolutionary story of the origins of such apprehension:

We often find ourselves faced with a choice between performing and not performing a specified action. Not all choices are like this. Sometimes we have two or more options, each independently described in positive terms. But at other times nature offers us an opportunity, and our choice is simply to accept or to decline. To have a sense that there is a decision to be made in such a case seems already to have a sense of the incompatibility of the options. Once language comes to be associated with the activity of agents, there is thus a need for negation in formulating, offering, and expressing choices. (Price, 1990, 226)

His idea is that when we are faced with a choice we perceive an incompatibility. We recognize the boundary between something and something else, between one state of affairs and another, between a property and a different one. Negation comes later, when we learn how to use language.

Grim (2004, 63)’s examples of incompatibilities are the property of *being uniformly red only* and the property of *being uniformly green only*, and the properties of *being less than two inches long* and *being more than three feet long*. These properties are exclusive because the possession of one by some object excludes the possession of the other by that object. A property can exclude multiple other

³⁴Ibid., 179.

³⁵Ibid.

properties from being possessed. The property *less than two inches long* excludes a range of incompatible properties, such as, *more than one foot long, more than two foot long, more than three feet long*, etc. Generally, all those properties incompatible with a some property P are in the *exclusionary class* of P .

Berto (2008, 181) offers his first attempt at formalizing his NOT:

$$\text{NOT } P_1(x) =_{df} \exists P_2(P_2(x) \wedge P_1 \perp P_2)$$

where \perp is a binary relation of material exclusion. ‘ x is NOT P_1 ’ just is to say that ‘there is some other property P_2 such that x has it and which is materially exclusive with respect to P_1 .’ He illustrates with a car and its colors. To say that ‘The car is NOT blue’ just means that ‘The car has some property incompatible with that of *being blue*,’ without specification of which property. He indicates that this is the logically weakest statement which is incompatible with the former. ‘The car is red’ is stronger because contains the addition information of specifying which color.

Berto (2008, 187) then can express LNC with his NOT. He uses a different translation of Aristotle’s formulation from the *Metaphysics* where the Greek ‘adynaton’ is translated as ‘impossible’:

For the same thing to hold good and NOT hold good simultaneously of the same thing and in the same respect is impossible [adynaton].

‘ P_1 does NOT hold good of x ’ abbreviates ‘to x has some property P_2 , which is materially incompatible with P_1 .’ So, we have it that it is impossible for P_1 to belong to x and P_2 , which is materially incompatible with P_1 , to also belong to x simultaneously and in the same respect. Of course, Berto characterizes his NOT in terms of metaphysical possibility. As we have seen with Tahko, the right level

modality here is the metaphysical kind. So, we can restate it using Tahko's modal phrase:

There is no genuinely possible configuration of the world in which for any individual x and any properties P_1 and P_2 , P_1 belongs to x and P_2 , which is materially incompatible with P_1 , also belongs to x simultaneously and in the same respect.

Berto argues that the dialetheist cannot also coherently accept claims inconsistent with his Aristotelian formulation of LNC.

Priest and other dialetheists need an exclusion-expressing tool too, but to avoid trivialism. In Priest's paraconsistent logic, the Logic of Paradox (LP), there is a model of it, namely the trivial model, in which it is logically possible that every statement is true, because if all atomic statements are both true and false, then all statements are true and false. As Berto (2008, 170) notes, "nothing is ruled out *on logical grounds only* in the dialethic framework." But for Priest, the challenge of ruling things out can be met in the realm of pragmatics. The pragmatic operator for rejection is what does the excluding work of negation. Recall LNC3b: $\neg(\vdash_x \alpha \wedge \dashv_x \alpha)$. x cannot simultaneously both accept and reject α . Priest would accept this formulation because acceptance and rejection are doing the exclusionary work (although they are not exhaustive because someone can be an agnostic, holding the only third possible stance). He explains like this:

Someone who rejects A cannot simultaneously accept it any more than a person can simultaneously catch a bus and miss it, or win a game of chess and lose it. If a person is asked whether or not A , he can of course say "Yes and no." However this does not show that he both accepts and rejects A . It means that he accepts both A and its negation. Moreover a person can alternate between accepting and rejecting a claim. He can also be undecided as to which to do. But do both he can not. (Priest, 1989, 618)

The dialetheist may not be able to exclude α by affirming “ $\neg\alpha$ ” because α and its negation are not mutually exclusive for them. But they can exclude α by *rejecting* α .

But then, for Berto (2006, 291), the question becomes: *what* exactly is accepted by someone who accepts a dialetheist’s denial? A denial conveys information. Information is conveyed by a pragmatic speech act if it excludes some content. Grim (2004, 62) puts the problem this way:

If dialetheism has so much going for it, why stop it short of assertion and denial? It is also unclear that exclusion *can* be restricted to the pragmatics of assertion and denial alone. Given that the dialetheist can deny certain claims, including the LNC, what is the information that he conveys by his denial? If we accept his denial, what precisely is it that we have accepted? If we learn that he is right, what precisely is it that we have learned? All these questions reflect the fact that a denial is intended to convey some content. But any *content* that inherits the exclusionary characteristics that Priest recognizes for denial will thereby have precisely the exclusionary characteristics he refuses to recognize for negation.

If Priest excludes the statement ‘She catches the bus’ by saying that he denies it, then there is some deeper kind of exclusion going on. The content of ‘She catches the bus’ is materially incompatible with the content of ‘She misses the bus.’ The dialetheist understands material exclusion. So, they also understand Berto’s NOT. For (Berto, 2008, 166), they are committed to accepting it “without also accepting something inconsistent with it, on pain of trivialism.”

2.1.3.1.2 Absolutism

Now that we are familiar with Berto’s definition of NOT and formulation of LNC4, we can return to Estrada-González’s case for absolutism. He states the principle of exclusion as follows:

(PE) It is impossible for an entity to be P and to be NOT P . (Estrada-González, 2014, 201)

in the sense of Berto's NOT. And then he states his Tahko inspired argument against the possibility of metaphysical dialetheism:

(T1) According to realist dialetheism, there are contradictions in reality.

(T2) But the principle of exclusion is valid, i.e. an entity cannot have two mutually exclusive properties.

(T3) Therefore, realist dialetheism is impossible.³⁶

He accepts the truth of the premises but rejects the argument's validity. He claims that to be valid an additional premise must be added:

(T2*) All (metaphysical) contradictions are exclusions.³⁷

He proceeds to argue that this premise is false because there can be dialetheias even though a modified PE is valid. For him, "certain abstracta could give rise to dialetheias."³⁸

But a proponent of LNC4 is free to reject his version of PE. He also redefines negation which is not equivalent to the most prominent paraconsistent negation, which is of Priest's LP. For Estrada-Gonzalez falsity is not the truth of negation. But, as we saw earlier, $F[\alpha] \leftrightarrow T[\neg\alpha]$ is widely accepted by both supporters and critics of LNC. LNC2a, $\neg(T[\alpha] \wedge F[\alpha])$, and LNC2b, $\neg(T[\alpha] \wedge T[\neg\alpha])$, are taken to be equivalent. So, for Estrada-Gonzalez, the usual characterizations of dialetheias "'the conjunction (or each member of the pair) p and not- p is true' and ' p is both

³⁶Ibid., 202.

³⁷Ibid., 203.

³⁸Ibid., 213.

true and false' are not equivalent" (Estrada-González, 2014, 208, f. 12). So, other dialetheists are free to reject his version of negation.

In any case, even if a dialetheist can be justified in his belief that there are abstract inconsistent objects, they would be committed to the view that the actual world is an impossible world. Martin (2014) presents the dilemma that either the dialetheist accept that their research program of trying to solve the self-referential paradoxes comprehensively is not possible or concede that the actual world is an impossible world. I will briefly look at the latter horn. Martin defines the impossibility of a world: "[A]n impossible world is a world w where propositions that cannot possibly be true *are true*."³⁹ So, he infers, any w where a contradiction is true will be an impossible world. Now recall Martin's definition of absolutism: There are true contradictions at a metaphysically possible world. The absolutist must admit that some impossible worlds are possible worlds.

Yet to admit that some impossible worlds are also possible worlds seems to strip impossibility of the theoretical role that the concept plays. If a world w 's being an impossible world doesn't preclude that it's also a possible world, then it's unclear what function the concept of impossibility serves. [...] [T]he absolutist would be taking on the burden of explaining what theoretical role the concept of impossibility plays if it doesn't preclude possibility. (Martin, 2014, 66)

What is more, Martin argues that if possibility and impossibility intersect, the absolutist cannot prevent the actual world from being an *impossible* one.⁴⁰ Estrada-Gonzalez's inconsistent objects are abstract and so would exist in every possible world. But dialetheism and absolutism are compatible. So, there would be a contradiction in the actual world. So, the actual world would be an impossible one. Martin observes that this is perplexing because an impossible world is a

³⁹Ibid., 66.

⁴⁰Ibid., 66.

world that could not be actualized, but the actual world *is* actualized.⁴¹ If there is anything that we can say about the actual world, it is that it is not impossible. Priest would rather say that contradictions are possible, that is, true contradictions at the actual world do not entail that the actual world is an impossible world (Priest et al., 2004, 177, f. 5). But consider his definition: “an impossible world is one where the laws of logic are different from those of the actual world (in the way that a physically impossible world is a world where the laws of physics are different from those of the actual world)” (Priest, 2014, xxiii). Martin points out that it is not clear how Priest’s and other prominent dialetheists’ definitions of impossible worlds and states of affairs “can plausibly accommodate the impossibility of the actual world.”

So, we are free to reject absolutism and thus accept that Berto’s modal LNC4 is necessarily true.

2.1.4 LNC is a proposition

LNC4 governs the structure of any metaphysically possible world. It is true in every such world. But what kind of thing is a truth? I argue that if LNC exists then it is a proposition.

A truth is something that bears a truth value and that value is *true*. A falsehood is something that bears a truth value and that value is *false*. There are four main candidates in the literature for truthbearers: beliefs, propositions, sentences, and utterances. A belief is something that is in some sense in the mind and that we accept as true. But this something is a truthbearer. So, a belief bears truth in a derived sense. So, this more fundamental truthbearer is either a proposition, a sentence or an utterance. An utterance is a specific event, that is, the intentional

⁴¹Ibid.

act of a speaker at a specific time and location, and they typically involve language. But an utterance, whether it is written or spoken, is an act or event, and acts and events do not bear truth. They either occur or not. The act of my writing down the sentence 'Snow is white' on a piece of paper is not true or false. But the sentence itself may be true or false.

A sentence is a sequence of words, and words are linguistic objects. They are part of a language. A language is something that consists of words in a structured and conventional way. But LNC4 cannot be restricted to being a mere sentence. After all, it can be expressed with different sequences of words, as we have seen earlier. Also, there are metaphysically possible worlds in which there is no language and hence in which there are no sentences. Max Black's famous world in which there are just two qualitatively identical symmetrical spheres contains no words. But LNC4 is true in every such world and so it is true in that one too. The best candidate, at least by the process of elimination, is that LNC4 is a proposition. Propositions are typically held to be the primary bearers of truth value. They are the primary bears of truth in that any other kind of thing that wants truth must have it in virtue of expressing a true proposition.

2.1.4.1 There are propositions

There are, of course, independent reasons for thinking that there are propositions. We may want to posit their existence to play some of the the following roles: to be the objects of belief and other 'propositional attitudes' (what McGrath (2014) calls the 'Metaphysics 101 argument'), to be the referents of that-clauses (so-called 'metalinguistic arguments') and the meanings of sentences (a solution to a kind of 'one over many' problem for synonymous sentences).

But I find arguments from Trenton Merricks (2015, ch. 1) for their existence

and nature appealing, and one such argument suffices for our purposes. The starting point of his argument is that there are modally valid arguments. He defines the modal validity condition for arguments: “An argument is modally valid just in case, necessarily, if its premises are true, then its conclusion is true.”⁴² But arguments are constituted by premises and a conclusion. So, such constituents exist. He calls these premises and conclusions ‘propositions’ because they have certain properties: they exist necessarily, have their truth conditions essentially, are the fundamental truthbearers, among other properties. To illustrate, he has us consider this famous argument:

- (1) All men are mortal.
- (2) Socrates is a man.
- (3) So, Socrates is mortal.⁴³

This is modally valid because, necessarily, if (1) and (2) are true, then (3) is true. A critic might suggest that (1)-(3) is only logically valid. Modal validity and logical validity are different concepts. The former is defined in terms of necessity, and the latter in terms of form. But Merricks argues, in his second chapter, that there are logically valid arguments only if there are modally valid ones. I will briefly sketch his argument.

The following argument is not logically valid:

- Cicero is an orator.
Therefore, Tully is an orator.⁴⁴

That is, it is not valid simply in virtue of its *form*. Its predicate logic form is *a* is *F*; therefore, *b* is *F*. But no argument of that form is logically valid. Merricks has

⁴²Ibid., 1.

⁴³Ibid., 3.

⁴⁴Ibid., 35.

us imagine a model that assign 'a' to himself, 'b' to his daughter and 'F' to the set of males. In this model 'a is F' is true but 'b is F' is false.⁴⁵ So, there is a model in which the conclusion is not true but the premise is. So, it is not logically valid. So, it is not logically valid.

In contrast,

Cicero is an orator.

Therefore, Cicero is an orator.⁴⁶

is logically valid, both in predicate and sentential logics. And the argument composed of propositions

That Cicero/Tully is an orator

Therefore, *That Cicero/Tully is an orator*⁴⁷

is modally valid, that is, necessarily, if the premise is true than the conclusion is too. For Merricks, because propositions are the primary truthbearers, a sentence is true (in a context of use) only if it expresses a true proposition. All of the members of the first two arguments express the same proposition *that Cicero/Tully is an orator*, which is a member of the third argument. But logical validity involves truth preservation from the premise(s) to the conclusion. So, the second argument is logically valid just in case "its form guarantees that the sentence that is its premise expresses a true proposition only if the sentence that is its conclusion expresses a true proposition."⁴⁸

⁴⁵Ibid., 36.

⁴⁶Ibid., 39.

⁴⁷Ibid., 41.

⁴⁸Ibid., 39.

So, it is not enough to say that the argument (1)-(3) is merely logically valid. It is modally valid. So, there is a modally valid argument. But it has constituents: premises and a conclusion. So, there are premises and a conclusion.

These premises and a conclusion (of a modally valid argument) would either be propositions or sentences. Merricks argues for the former. Sentences do not have their truth conditions essentially. Sentences can change their meaning, and they can change in their truth conditions, because their constituent words can change their meanings.⁴⁹ But Merricks points out that something cannot change with respect to its essential properties. There is no possible state of affairs in which I do not have the property of *being human* because I possess it essentially. Merricks gives the example of the semantic drift of the word 'guy.'⁵⁰ It once meant a *sculpture of a person*. So, the sentence 'A guy is on the street' once meant that a sculpture of a person is on the street. And, presumably, at that same time, 'A human being is on the street' meant that a human being is on the street. So, the argument with sentences,

'A guy is on the street'

So, 'A human being is on the street'⁵¹

is not modally valid, because it is possible that the premise, which expresses *a sculpture of a person is on the street*, is true but the conclusion, which expresses *a human being is on the street*, is false. But this argument,

A guy is on the street.

So, A human being is on the street.⁵²

⁴⁹Ibid., 5.

⁵⁰Ibid., 5

⁵¹Ibid., 6.

⁵²Ibid.

is modally valid, but it is not composed of the aforementioned sentences. So, Merricks infers that it does not have sentences as its premise and conclusion. So, modally valid arguments do not have sentences as their constituents. Of course, the only other viable kind of candidate are propositions. So, there are propositions.

So, we have good reason to think that there are propositions and that LNC4 is one of them.

2.2 If LNC is a necessarily true proposition, then it necessarily exists

We also have good reason to think that if something has a property or stands in a relation to other things then it exists. If this apple is red, that is, it has the property of *redness*, then the apple exists. If two oranges are zero distance from each other, that is, they stand in the relation of *physical contact* with each other, then they exist. Plantinga (1983, 4) calls this ‘serious actualism.’ He explains actualism *tout court* first:

The actualist does not hold that everything is *actual* (he recognizes, of course, that some states of affairs are not actual and some propositions are false); what *he* holds is that everything *exists* (again, quantifier taken unrestrictedly); there are no things that do not exist. (Plantinga, 1987, 196)

Actualism in this sense is intuitive enough. So, I will assume it for present purposes. But *serious* actualism is more substantial. Plantinga defines it this way:

The serious actualist holds, naturally enough, that everything whatever exists, but he adds that nothing has properties in worlds in which it does not exist. That is, for any world w , if Socrates has a property in w , then Socrates exists in w ; for any world w , if w is such that if it had been actual, then Socrates would have had P , then w is such that if it

had been actual Socrates would have existed. Still another way to put it: Socrates could not have had a property without existing.⁵³

Yannis Stephanou (2007, 219) provides a nice formulation of it which reveals its logical structure:

$$(SA1) (\forall x)(\forall P)\Box(x \text{ has } P \rightarrow Ex)$$

The box '□' symbol represents metaphysical necessity ('in every metaphysically possible world'), 'P' ranges over properties and 'E' is the existence predicate meaning 'exists.' For any individual x and property P , necessarily, if x has P then it exists.⁵⁴

But what about the property of *not existing*, the complement of existing? If there is such a property and it is exemplifiable, then it would seem to act as a counterexample to SA1. Stephanou observes that such a supposed property is frequently cited as such a counterexample.⁵⁵ He illustrates it this way. Socrates is a contingent being. So, there is a possible world w in which he does not exist. So, at w he has the property of *nonexistence*. So, he has some property at w . But by SA1, then, he exists at w , because he has a property. So, Socrates both exists and does not exist at w . But this is impossible.

Of course, the important inference is the one from that *there are worlds in which Socrates does not exist* to that *in those worlds he has the property of nonexistence*. But Plantinga offers an actualist argument for the invalidity of this inference, specifically, that nonexistence cannot be exemplified. So, if you are an actualist, then you should also be a serious actualist. Here is how he formulates his argument:

⁵³Ibid., 197.

⁵⁴He also introduces a parallel principle for relations, where R ranges over relations: (SA2) $(\forall x)(\forall y)(\forall R)\Box(x \text{ bears } R \text{ to } y \rightarrow Ex)$ (Ibid.). For any individuals x and y and relation R , necessarily, if x bears R to y then it exists.

⁵⁵Ibid., 223.

- (1) Necessarily, for any property P , if P is exemplified, then there is something that exemplifies it,
- (2) Necessarily, for any property P , whatever exemplifies P exists.
- (3) Necessarily, if nonexistence is exemplified, it is exemplified by something that exists. Plantinga (1987, 197-198)

Premise (1) is obvious. To be exemplified is to be exemplified *by* something. Plantinga indicates that “(2) is an immediate consequence of actualism.”⁵⁶ For by actualism, necessarily, everything exists. So, necessarily, everything that exemplifies properties exists. (1) and (2) entail that necessarily, for any property P , if P is exemplified, it is exemplified by something that exists. And we see that we get conclusion (3) when we replace the property variable ‘ P ’ with ‘nonexistence.’ (3) states a necessary condition for the exemplification of nonexistence: it can only be exemplified by something that exists. But existence and nonexistence are complements, that is, they are mutually exclusive properties. So, Plantinga concludes, something that exists cannot also exemplify nonexistence.⁵⁷ So, it is impossible that nonexistence is exemplified. So, the counterexample to serious actualism is not successful.

So, serious actualism is defensible. If something has a property or stands in a relation to other things then it exists. So, if LNC4 is actually true, that is, the *property of being actually true* is exemplified by LNC4, then it actually exists. Recall that we are working with absolute truth, which is a property of objects, not relative truth which is not. Moreover, if LNC4 is necessarily true, that is, it is true in every metaphysically possible world, then it has the *property of being true* in every such world.⁵⁸ So, if it exists in every such world, then it necessarily exists.

⁵⁶Ibid., 197.

⁵⁷Ibid., 198.

⁵⁸A&W’s version of this premise is criticized by Nathan Shannon (2012, 4, 5): “To be true *in* a possible world, a proposition must exist in that world; to be true *of* or *at* a possible world, the

Moreover, if it necessarily exists then it is *not* a physical object, because the set of all physically possible worlds is a proper subset of all the metaphysically possible ones. So, there are metaphysically possible worlds that contain no physical objects yet LNC4 exists in them too.

2.3 LNC necessarily exists

We now have our first two premises (M1) LNC is a necessarily true proposition and (M2) If LNC is a necessarily true proposition, then it necessarily exists. So, by *modus ponens*, we have (M3) LNC necessarily exists.

proposition need only describe that world. A proposition can be true of a possible world without existing in it. AW blur this distinction.” But Anderson & Welty (2013, 11) point out that if α is true of w , that is, describes w truly, then α would be true if w were the actual world. But a proposition cannot be true if it does not exist, as has been argued. So, A&W infer that if α does not exist in w , then α would not be true even if w were the actual world.

3 SECOND HALF OF ARGUMENT

In this major section, I defend the remaining premises. For the most part, I will follow A&W.

(M4) All propositions are thoughts.

(M5) So, LNC is a necessarily existent, true thought. (from M1, M3 and M4)

(M6) If LNC is a necessarily existent, true thought, then there is a necessarily existent mind.

(M7) So, there is a necessarily existent mind. (from M5 and M6)

3.1 All propositions are thoughts

We saw from Merricks' argument for propositions that propositions have certain properties. They are the fundamental bearers of truth and falsity, they can be expressed by sentences, etc. But I did not mention that, from his arguments, propositions have the characteristic of representing things in a certain way. A proposition is true *because* it represents things as being a certain way and things are that way. And a proposition is false because it represents things as being a certain way but things are *not* that way. What is more, from his arguments, propositions also *essentially* represent things as being a certain way (Merricks, 2015, 21).

The characteristic of representing things as being a certain way falls under the term 'intentionality.' It ultimately derives from the Latin verb *intendere*, which means *being directed towards something*. In his 1874 book *Psychology from an Empirical Point of View*, Franz Brentano introduced this concept to contemporary philosophy. Here is the oft-quoted passage:

Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object [...]. Every mental phenomenon includes something as object within itself, although they do not all do so in the same way. In presentation something is presented, in judgement something is affirmed or denied, in love loved, in hate hated, in desire desired and so on. (Brentano, 2009, 68)

So, intentionality consists of two characteristics: direction toward an object and direction in a specific way. Anderson & Welty (2011, 333-5) call these directedness and aspectual shape, respectively. “Dublin is the capital and largest city of Ireland” has directedness because it is directed toward Dublin. The two statements “The morning star is Venus” and “The evening star is Venus” are both directed toward the same object, namely, Venus. But the statements have different aspectual shapes; they are directed toward that planet in different *ways*. The former presents Venus as the brightest object in the early morning sky, and the latter does so as the brightest object in the evening one. The sentences, though, are *derivatively* intentional because they are intentional in virtue of expressing propositions which have directedness and aspectual shape. Propositions are intrinsically intentional.

A&W then point out that some mental entities (or thoughts) also exhibit intentionality. Beliefs, hopes, desires, fears, and so forth are typically about things (directedness) and they are so in particular ways (aspectual shape).¹ My desire for vanilla bean ice cream is for ice cream (directedness) and to eat it (aspectual shape). A&W contrast this with nonmental entities. Rocks, pianos, galaxies, lamps, etc. do not exhibit directedness and aspectual shape. If physical marks on a piece of paper can be said to exhibit such, then it does so derivatively, rather

¹Ibid., 334.

than intrinsically, because it would depend on the prior activity of some *mind*. A&W conclude that if there were no mind to confer meaning on physical marks, then the marks would not be about anything, because only a mind has the intrinsic power to *direct* thoughts. And it is obvious that thoughts exist.

So, both propositions and thoughts exist and exhibit intentionally. A&W ask us, How then should we fit propositions in our ontology?² They are either in an already existing ontological category or in their own. They argue that the first option is more simple and less arbitrary. In the absence of any good reason for believing that propositions are not mental, then we are free to assume that they are. We do not need to create a separate, unique category for them in our ontology. So, we assume that propositions are thoughts. So, LNC is a thought.

3.2 Against propositions as thoughts

Alexander Paul Bozzo (2012) offers an objection to this premise. Specifically, he offers a counterexample in which a proposition is intentional without there being a mind doing the directing. If successful it would show that a proposition can be intentional and also not be mental.

Suppose that Romulus is ignorant of which explorer discovered the Pacific Ocean. Nevertheless, he recognizes that some explorer did in fact discover it, and asserts that “The explorer who discovered the Pacific Ocean was adventurous.” Now the proposition expressed by this sentence—in particular, the definite description imbedded therein—is *about* Vasco Núñez de Balboa, and as such successfully refers. But here the definite description refers *despite* Romulus’s ignorance; that is, independent of his mind’s doing the directing. (Bozzo, 2012, 4)

Anderson & Welty (2013, 5) respond to this example. First, they identify that Bozzo offers no good reason to think that Romulus’s assertion cannot be about

²Ibid., 335.

Balboa because of Romulus's mental activity. Romulus uses the description "the explorer who discovered the Pacific Ocean" to refer to the object that has the property of *being the explorer who discovered the Pacific Ocean*, and that object just so happens to be called "Balboa." So, the assertion is about the person with this description and name. But A&W indicate that just because the description refers *despite* Romulus's ignorance, does not mean that it refers *apart from* Romulus's intentional activity. If he had not used the description to refer at all, there would be no reference. Use of a linguistic object to refer to other objects is an example of mental activity.

More importantly, A&W point out that even if the proposition expressed by Romulus's assertion were intentional apart from *his* mental activity, then it would not follow that the proposition could have intentionality apart from *any* mental activity. To assume that there is no mind whatsoever doing the directing is question begging. "[O]ur argument does not depend on the claim that if a mind entertains a proposition then the intentionality of that proposition derives solely (or even partly) from *that* mind."³ Rather, it depends on the claim that the intentionality of a proposition depends on *some* mind.

Another case that has been raised against M4 is by Colin P. Ruloff (2014). He argues that a broadly Fregean account of propositions is true and that on such an account propositions are *mind-independent*. He then argues that A&W's claim that propositional conceptualism is the least arbitrary is mistaken. He summarizes the Fregean account:

Fregean propositional realism (FPR): Propositions are abstract, mind and language-independent, truth-bearing, representational entities, that function as the referents of propositional attitude reports and the mean-

³Ibid.

ings of declarative sentence-tokens.⁴

Ruloff argues that propositions are mind-independent for Frege because a proposition can be believed and expressed by two different persons uttering different sentences of different languages.⁵ He gives an example of a proposition that is shared by two different people. Jones assents to ‘Snow is white,’ while Smith assents to ‘Schnee ist weiss.’ Hence, their mental states are different. But both believe the same proposition, namely, that *Snow is white*. It acts as the content of their respective beliefs. So, it is intersubjectively shareable across Jones’ mind and Smith’s mind. So, Ruloff concludes that it is not identical to the particular mental states corresponding to their beliefs. Propositions are intentional “independently of the cognitive activities of the agents who entertain them.”⁶

Another argument Ruloff gives for why propositions are not mental is that “the representational properties of mental states is best explained in terms of the representational properties of *propositions* which serve as their contents.”⁷ To support this claim, he asserts that Scott Soames has “suggested just this line of reasoning,” and he cites a passage from Soames:

[P]ropositions are the *primary* bearers of intentionality, the intentionality and truth conditions of cognitive acts or states must be explained in terms of quasi-perceptual relations we bear to propositions. For Frege and Russell, all intentionality originates and is grounded in an abstract “third realm.” (Soames, 2014, 26)

Here is another passage from Soames’ work that Ruloff does not refer to:

⁴Ibid., 46.

⁵Ibid.

⁶Ibid., 47.

⁷Ibid., 45.

The most general form of the problem is to explain how propositions [...] manage to represent the world, and so have truth conditions. Although many things have truth conditions—including sentences, utterances, and mental states—the standard explanation for this is that they do so because they express propositions that are inherently representational, and so have truth conditions *independent of us*. Soames (2014, 33)

Although A&W have not published a response to Ruloff's arguments, I think that Ruloff's arguments and Bozzo's argument suffer from a similar defect: they fail to show that propositions exist independently of *any* mind. His first argument only shows that there is a proposition that exists independently of *the minds of Jones and Smith*. For the second argument, recall Soames' first passage. The "cognitive acts or states" that he mentions belong to *us* humans by his use of the word "we." Likewise for the other passage: the "mental states" that get their "truth conditions" from propositions are *ours*, given his use of "us." Of course, that propositions exist independently of *human* minds is compatible with M4 because *human* minds do not exhaust the full range of minds.

Ruloff then goes on to point out that A&W believe M4 because they state that we do not have "good independent reason for insisting that propositions are not mental items" and that M4 is the "simplest and least arbitrary" (Anderson & Welty, 2011, 334-335). To try to counter the first of these claims, Ruloff (2014, 48) appeals to the "singular term argument" (STA) for the existence of propositions.

Step One In sentences containing "that"-clauses, the "that" clause is naturally taken to be a singular term or referring expression. [...]

Step Two The most plausible referents for such clauses are propositions construed specifically as mind-independent, non-spatiotemporal, abstract objects.

He observes that support for Step One is given by this kind of argument:

- (5) Jones believes that snow is white.
- (6) Therefore, Jones believes something.⁸

And its validity, for STA proponents, is explained in terms of existential generalization:

- (7) Jones believes the referent of “that snow is white”.
- (8) Therefore, there exists something such that Jones believes it.

So, “that snow is white” is a singular term that refers to some specific object.⁹ Ruloff concludes that if Step Two is true too, that is, non-propositional accounts of referents for “that”-clauses are not plausible, then there are propositions.¹⁰

But I think that this argument is compatible with M4 if we construe Step Two as this: The most plausible referents for such clauses are propositions construed specifically as *human-mind*-independent, non-spatiotemporal, abstract objects.¹¹ Indeed, we can interpret FPR similarly as this: *Non-human propositional realism* (NPR): Propositions are abstract, *human-mind* and language-independent, truth-bearing, representational entities, that function as the referents of propositional

⁸Ibid.

⁹Ibid.

¹⁰Ibid.

¹¹It could be objected that Frege’s concept of *abstraction* is not compatible with even divine mentality. Gideon Rosen (2014, sec. 3) points out that for Frege abstract objects are distinguished from concrete objects by abstract objects’ lacking certain concrete properties. He formulates it this way: “An object is abstract if and only if it is both non-mental and non-sensible.” God would be concrete, and the thoughts of a concrete being are themselves concrete. LNC4, for instance, would be concrete if acausality is necessary for abstraction because LNC4 is not acausal — it constrains the structure of reality. So, God’s thoughts cannot be abstract objects. So, divine conceptualism is incompatible with FPR.

But a proponent of divine conceptualism can subscribe to a *functionalist* account of “abstract objects,” according to which divine thoughts play the role of whatever is considered to fall under the category of “abstract propositions.” Welty (2014, 95, fn. 2.) indicates that such a view is “compatible with a wide variety of ontological specifications.”

attitude reports and the meanings of declarative sentence-tokens. So far the only kind of minds that Ruloff's arguments exclude are human ones.

Finally, to combat A&W's claim that M4 is the "simplest and least arbitrary", Ruloff states that mind-independent propositions perform important explanatory work, and such explanatory power justifies the violation of the principle of parsimony,¹² according to which we should not multiply ontological kinds beyond explanatory necessity. He appeals to his earlier arguments. FPR provides a plausible explanation of how the same proposition can be believed and expressed by different people uttering different sentence of different languages.¹³ But I think that there is no good reason why a view consistent with NPR cannot explain the same phenomenon. God eternally and necessarily conceives the proposition *Snow is white*, and Jones can believe it via 'Snow is white,' while Smith can believe it via 'Schnee ist weiss.' So, God's thought is intersubjectively shared by both Smith and Jones. Ruloff then states, "FPR provides a plausible account of how mental states gain their representational content"¹⁴. Well, more accurately, it provides a plausible account of how *human* mental states gain their representational content. So, I conclude that there is no good reason why a view consistent with NPR is less explanatory than Ruloff.

So, we have seen that we have good reasons to think that propositions are thoughts.

3.3 LNC is a necessarily existent, true thought

At this point, we have the premises (M1) LNC is a necessarily true proposition, (M3) LNC necessarily exists, and (M4) All propositions are thoughts. From M1 we

¹²Ibid., 49.

¹³Ibid.

¹⁴Ibid

get that LNC is necessarily true and is a proposition. From M2 we get that LNC necessarily exist. And from M4 we get that LNC is a thought. So, we can conjoin these properties to get (M5) LNC is a necessarily existent, true thought.¹⁵

3.4 If LNC is a necessarily existent, true thought, then there is a necessarily existent mind

But then there must be some mind(s) which thinks the LNC. For a thought exists only if there is a mind to think it. So, if LNC is a necessarily existent, true thought, then either (i) in each possible world some contingents mind(s) produces it or (ii) in each possible world, some necessary mind(s) produces LNC.

Suppose (i) that LNC is the thought of contingent minds. Then, as Anderson & Welty (2011, 336, f. 31) imagine, every possible world contains at least one contingent mind that produces LNC. But necessarily, a thought belongs to the mind that produces it.¹⁶ The thoughts of contingent minds are themselves contingent. But as we have seen, LNC is not contingent. Hence, it cannot be identified with the thought of any contingent minds.

Additionally, there is a modal intuition that there are possible worlds in which there are no contingent minds. Again, think about Max Black's world that contains only two qualitatively identical spheres. There are no contingently existent minds there. But LNC will exist in it, and so there will be some mind to think it.

Smith (1994, p. 42) considers a different approach to this issue without the

¹⁵There is a possible worry here. If LNC is a thought, then it is about something in particular. Maybe that something is a second-order property, specifically, the complex property of *being incompatible with other properties and not being able to belong to the same object as that other property*, or something of that sort. So, it would seem that such a property is what is doing the explanatory work of LNC. But then LNC would be superfluous (as a proposition/thought).

However, LNC is a general proposition/thought in that it is about all objects and properties whatsoever. So, there is nothing *in particular* in the world that the LNC is about. So, LNC is not explanatorily superfluous.

¹⁶Ibid.

appeal to the modal intuition. Perhaps, contingent minds exist in every possible world yet at some but not all times. But Smith points out that if propositions can exist at times, then some of them exist at all times, for example, LNC. So, there will be times at which a proposition exists but it will not be thought of by a contingent mind. But a proposition must be thought of by some mind(s). So, at these times they are thought of by some necessary mind(s). Either way there are problems with option (i).

Now suppose (ii), that in each possible world, some necessary mind(s) produces it. Then either in each possible world, some necessary mind produces it or some necessary mind(s) produces it but not the same one in each world. Of course, just one necessary mind suffices to do the job. So, by the principle of simplicity, we need not postulate extra necessary minds. But if we have independent reasons for thinking that there are multiple necessary minds which entertain LNC, then so be it. Indeed, there are models of the Trinity that purport to show how it can be coherent to say that the Father, Son, and Holy Spirit are three *minds* in one being. William Craig (2006, 101) calls his 'Trinity Monotheism.' He describes it this way:

God is an immaterial substance or soul endowed with three sets of cognitive faculties each of which is sufficient for personhood, so that God has three centers of self-consciousness, intentionality, and will. [...] But that they are divine on the final model seems obvious, since the model describes a God who is tri-personal. The persons are the minds of God.

In any case, to say that there is a necessarily existent mind just is to say that there is *at least one* necessarily existent mind. So, there seems to be no problem with supposing (ii).

So, if LNC is a necessarily existent, true thought, then there is a necessarily existent mind.

3.5 There is a necessarily existent mind

So, we have the premises (M5) LNC is a necessarily existent, true thought and (M6) If LNC is a necessarily existent, true thought, then there is a necessarily existent mind. So, by *modus ponens*, we get our conclusion (M7) There is a necessarily existent mind.

4 CONCLUSION

In conclusion, upon conceptual analysis of this necessarily existent mind, we should think of it as a *personal* mind. The only minds we know about that can do the job are those of persons, as was suggested in the introduction. So, there is a necessarily existent person. But since LNC is a nonphysical object, like A&W's logical laws, such a person is spiritual in nature. So, there is a necessarily existent, spiritual person.

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