A new Response to dialetheism: Recognizing Metaphysical Respect

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ABSTRACT: Dialetheists claim that some statements are dialetheia or true contradictions and are both true and false. This challenges the classical understanding of the law of non-contradiction (LNC). Dialetheists claim there are at least three types of dialetheia: contradictory concepts, sorites paradoxes, and self-referential paradoxes. Attempts to argue that these contradictions are merely semantic have not succeeded entirely, and dialetheists reject this as begging the question. My goal here is to show that these cited dialetheias are not true contradictions at all, thus preempting motivations for dialetheism (and paraconsistent logics). I argue that contradictory concepts and sorites paradoxes are not dialetheias but rather distinguos—apparent contradictions where each side takes place in a different *metaphysical respect*. Next, I argue that contradictions of self-reference, such as the liar paradox, are also not dialetheias but a special sort of distinguo I call a *quatology*—a statement whose metaphysical respect necessarily entails the opposite of its predicated attribute. I argue that neither distinguos nor quatologies violate the classical understanding of the LNC and thus demotivate dialetheism and paraconsistent logics. Finally, I discuss various implications this view might have for logic, mathematics, and physics.

KEYWORDS: dialetheism, law of non-contradiction, paraconsistent logic, distinguo, quatology

"Distinguo est le plus universel member de ma Logique."
Michel de Montaigne, "De l'Exercitation" (1958, 335)

1. Introduction

Dialetheists claim that some statements are dialetheia or true contradictions and are both true and false. This challenges the classical understanding of the law of non-contradiction (LNC). Dialetheists claim there are at least three types of dialetheia: contradictory concepts, sorites paradoxes, and self-referential paradoxes. Attempts to argue that these contradictions are merely semantic have not succeeded entirely, and dialetheists reject this as begging the question. My goal here is to show that these cited dialetheias are not true contradictions at all, thus preempting motivations for dialetheism (and paraconsistent logics).

Aristotle introduces the concept of respect in his *Metaphysics* in the original and still authoritative expression of the law of non-contradiction (LNC). Very literally translated, Aristotle wrote, "Simultaneously belonging and not belonging is

not possible for the same in the same respect" (1005b 18-21, my translation). In a more standard translation by Hugh Tredennick in the Loeb, the translation is: "It is not possible for the same object to have and not to have an attribute at the same time and in the same respect" (1005b 18-21). This statement by Aristotle has traditionally been considered to mean that there cannot be true contradictions and has been formalized in the modern expression $\neg(A \wedge \neg A)$, where A is any arbitrary proposition. However, there is more to Aristotle's statement than is usually and formally taken into account. The converse of Aristotle's statement suggests that there can be contradictions if certain conditions are met. The converse of the LNC goes something like this:

> (CLNC) An object can have and not have an attribute, so long as it is at different times, in different respects, or both.

In other words, certain sentences appear to express contradictions but are not, since each of the two sides of the contradiction takes place at different times, in different respects, or both. Such pairs of statements are called *distinguos*. A distinguo does not falsify the classical conception of the LNC since it accords with the CLNC. A distinguo is not a real contradiction or dialetheia, only an apparent one. I will develop the CLNC and the concept of a distinguo formally in Section 3.

I will argue here that each side of contradictory concepts and sorites paradoxes depends on different respects and, therefore, are not dialetheias. In discussing how to resolve self-referential paradoxes, I propose that there is a special type of distinguo I will call a *quatology* whose respect necessarily entails the opposite of its attribute. I argue that quatologies are, like tautologies, a unique species of expression with their own special characteristics. As a type of distinguo, I will argue that, like tautologies, quatologies neither add nor remove any content from any derivation in which they are found and so are not explosive or a cause of trivialism.

Even at the outset, this argument has various necessary limitations. While I will argue that various presumed paradoxes are not dialetheias, I cannot prove that true dialetheias could not someday be found. It has generally been agreed since Aristotle that it is impossible to provide a positive proof of the LNC. One can only defend the LNC when apparent dialetheias arise and challenge it. While many scholars use a semantic argument to refute dialetheism, my thesis here does not in any way touch or refute the semantic argument itself. I leave the semantic argument to the side and instead argue that each proposed dialetheia is not a true contradiction once respect is taken into account. Here, I limit myself to responding only to metaphysical dialetheism—the claim that true contradictions exist in the world. My argument does not respond in any way to purely logical or semantic forms of dialetheism or paraconsistent logics.

In Section 2, I outline the various types of dialetheism. In Section 3, I summarize the current responses to dialethism, particularly the semantic response. In Section 4, I lay out the LNC and its converse (CLNC) formally and use those formalizations to define a distinguo. In Section 5, I define and discuss metaphysical respect. In Section 6, I argue that two sorts of dialetheias—contradictory concepts and sorites paradoxes—are distinguos. In Section 7, I introduce and define the term *quatology* and use it to build a novel resolution to self-referential paradoxes. In Section 8, I briefly speculate about some of the potential consequences of applying the notions of distinguo and quatology to topics in logic, mathematics, and physics.

2. Considering Various Sorts of Dialetheism

Credence in dialetheism is based on that there appear to be instances of persistent and irresolvable dialetheias one can point to. For instance, there are so-called *contradictory concepts*, such as being both attracted to and repelled by looking at a traffic accident (Priest 2019, 50). There are also many varieties of sorites paradoxes. These usually involve questions of continuity, such as if one's body was exactly halfway out of a door of a room, one would be both inside and outside of the room (Priest 1998). Perhaps the most compelling of these instances of dialetheia are paradoxes of self-reference, such as the liar paradox—'this statement is a lie.' (Priest et al. 2024). Paradoxes of self-reference also include the barber paradox and others. In addition to these dialetheias, some scholars suggested that some phenomena within quantum mechanics violate the LNC and lend credence to dialetheism. They point especially to Heisenberg's indeterminacy principle and the theory of wave-particle duality (Putnam 1979; Bueno & Colyvan 2004; Tahko 2009, 43-44; Horn 2024, Section 4). The presence of these dialetheias appears to falsify the classical understanding of the LNC that there cannot be true contradictions.

Modern dialetheism is not trivialism. Dialetheists hold that the LNC does apply generally. True contradictions exist in only extremely narrow and limited domains. "The counterexamples to the universality of the LNC are of very particular sorts (involving self-reference, or states of affairs that are but instantaneous, and so on), and we do not deal with these kinds of situations very often" (Priest 1998, 423). So, dialetheists do not doubt commonsense contradictions nor embrace trivialism generally. Despite this limited scope, the LNC is a universal claim, so any credible example of a dialetheia challenges the classical understanding of this law. So, a defense of the LNC must respond to any dialetheia, even if it is restricted to extremely narrow arenas.

There are various forms of dialetheism, each a different way to respond to or explain or cope with "the shocking thesis of dialetheism" that at least some true

contradictions exist (Parent 2023, 9). The strongest form of dialetheism is a metaphysical sort that claims that true contradictions are real beings in the world (Priest 2014). More "modest" forms of dialetheism do not support the idea that true contradictions are real or in the world but have some other explanation (Ibid.). For instance, if one adopts a deflationary theory of truth, dialetheias become meaningless but inevitable linguistic spandrels (Beall 2009). In other words, if one believes that saying something 'is true' is only a disquotational linguistic device and does not denote any substantive property (Beall 2019), then the liar paradox becomes merely "an oddity of linguistic usage, rather than as evidencing something central about the use of 'true'" (Parent 2023, 2). There is also an "ultra-modest" form of dialetheism which suggests that "true" is not always a disquotational linguistic device but is in cases like the liar paradox and other dialetheias (Ibid.). There is also *fictionalist dialetheism* that suggests that the apparent truth of some contradictions should be understood as true only within a useful fiction, rather than as literally true in reality (Kroon 2004). And *semantic dialetheism* that holds that contradictions can be true only within the realm of semantics (concerning language and meaning), but not in the non-semantic world of physical reality (Mares 2004). Finally, there is a purely logical explanation of dialetheism called *diamathematism*, which specifically holds that some logics, understood as flows of information, naturally can contain true contradictions while maintaining their coherence and usefulness as formal systems (Wansing 2022).

To this list, I will add another sort of dialethism, which one could call *dialetheic agnosticism*. Dialetheic agnosticism emerges when one agrees that the semantic arguments put dialetheism into serious contention but still considers them ultimately insufficient to refute dialetheism outright (Armour-Garb & Woodbridge 2006). So, for dialetheic agnostics, the possibility of dialetheias remains open. However, since the LNC is an absolute law, admitting the possibility of dialetheias is a threat equal to the actual presence of dialetheias. And so dialetheic agnosticism is equivalent, in this regard, to strong metaphysical dialetheism.

Despite the many sorts of dialetheism, all of them depend on accepting the claim that there are some sorts of true contradictions, the most salient being self-referential paradoxes exemplified by the liar paradox. My argument here will be to argue that all the accepted dialetheias are not true contradictions at all, but distinguos that do not violate the LNC. This preempts the motivation to believe dialethism or develop paraconsistent logics.

Note that my argument here responds primarily to metaphysical dialetheism. It does not diminish proposals for purely logical and semantic forms of dialetheism since these treat contradictions not as metaphysical truths or extant beings but as

information signals. It appears quite intuitive and undeniable that information systems commonly have information signals that can be contradictory (e.g., pressing the gas and brake pedal simultaneously in a car, running air heating and cooling systems simultaneously, or shaking one's head while saying 'Yes'). Such signals might confuse a system, but they are true contradictions *qua* information signals, but not *qua* metaphysical being.

3. Current Responses to Dialetheism

There have been many attempts to refute dialetheism, but no definitive refutation has emerged. There has long been consensus that there is no way to positively prove the LNC (See Aristotle; Łukasiewicz 1910; Dancy 1975; Couvalis 2009; Tahko 2009; Hudry 2013). Aristotle proposed that the only defense of the LNC is an elenctic defense (Gottlieb 2023); however, such a defense appears only to work if one's opponent rejects the LNC entirely—for instance, a Heraclitean or a trivialist who believes that the world is entirely chaotic and contradictory. Contemporary dialetheists are not trivialists since they generally maintain that the LNC operates normally most of the time but claim that there are a few special exceptions to the LNC. So, catching them in an *elenchus*—a Socratic logical refutation—is not a viable refutation.

Aristotle did make various arguments in favor of the LNC and against dialetheism, but dialetheists have provided coherent and convincing responses to each of Aristotle's arguments (Priest 1987/2006, ch.1). Since Aristotle, there have been various other arguments against dialetheism, including (Priest 2024):

1) Explosion: a dialetheia cannot exist because any real contradiction would make everything both false and true
2) Exclusion: a dialetheia cannot exist because any proposition must exclude something to have a meaning, and $A \wedge \neg A$ does not exclude anything and is therefore meaningless
3) Negation: a dialetheia cannot exist because a dialetheia would mean that it would be impossible to claim that A was true, since definitions of truth require its opposite to be not true.

Despite the apparent strength of these arguments, dialetheists have responded to each. The argument from explosion suffers from the fallacy of begging the question since it presumes that real contradictions always entail explosion, whereas dialetheism maintains that real contradictions do not always entail explosion (Gottlieb 2023; Priest et al. 2024, Section 4.1.). For 2) and 3) dialetheists have constructed paraconsistent logics that work around the requirements of exclusion and negation (Priest et al. 2024, Sections 4.2. & 4.3.).

The above modest (non-metaphysical) forms of dialetheism themselves are a sort of response or refutation to metaphysical dialetheism. They do not deny that there are true contradictions, but they modulate the meaning of the word 'true' to mean either fictionally true, semantically true, logically true (in an informational system), or true in a deflationary sense. In each of these cases, the danger of metaphysical dialetheism—where true contradictions exist in the real world—is blunted down to a qualified form of dialetheism.

The most common argument against metaphysical dialetheism is that there are no true contradictions, since dialetheias are only semantic contradictions and therefore they are not metaphysically problematic. One can avoid apparent dialetheias by adhering to a few semantic rules, such as avoiding self-reference (Eklund 2002A, 2002B; Mares 2004; Hyde 2018). Holders of this view sometimes characterize dialetheias as semantic pathology (Armour-Garb & Woodbridge 2006) and semantic meaninglessness (Warren 2024). This semantic argument goes back to arguments made by Russell and Tarski that apparent contradictions would disappear when language is made more precise and certain rules are put in place, especially the rule against self-reference (Warren 2024). Tarski considered paradoxes like the liar paradox possible only because human languages, such as English, are semantically closed, meaning they can predicate things of themselves. As a solution, Tarski required the use of artificial semantically open languages—languages that do not predicate things about themselves. Russell also banned self-referential language using the "vicious circle principle," which reads: "whatever involves all of a collection must not be one of a collection," which led to Russell's ramified type theory (Mancosu et al. 2009, 19). However, the idea that one could resolve dialetheias with more precise language has been damaged by finding contradictions inside of what were meant to be contradiction-free languages—a dramatic example being the emergence of Gödel's inconsistency theorem from Russell's *Principia Mathematica*. The contemporary version of this semantic refutation of dialetheism is essentially a restatement of the semantic critiques of a century before. The only difference is that these arguments are based on a better understanding and recognition of the complexities and inconsistencies of natural language, which has only increased the tolerance for dialetheism without taking a definitive stance for or against.

Despite the popularity of a semantic response to dialetheism, dialetheism persists, largely because its supporters consider it impervious to a semantic refutation. Dialetheists do not consider dialetheism refuted by semantic arguments, since calling a dialetheia semantically incorrect or semantically pathological addresses only the semantic aspect of dialetheism and does not resolve these

dialetheias on a metaphysical level. Both metaphysical and logical forms of dialetheism are based on the view that dialetheias are *true* (either metaphysically in the world or logically true) and not just semantically valid. Hence, from the dialetheic perspective, semantic arguments against dialetheism fail because they beg the question. In other words, a semantic refutation already assumes that dialetheias are not true to conclude that they are semantically invalid (to prove that dialetheias are not true). If the dialetheias are true (either metaphysically or logically), then one cannot conclude that their statements are not semantically invalid.

Since no definitive argument for or against dialetheism has emerged either way, perhaps Terance Parsons best sums up the current state of the discourse around dialetheism when he wrote, "Perhaps gaps and gluts are two sides of a single coin. The correct view may be neither *analetheism* nor *dialetheism*, but *agnostaletheis*" (Parsons, 1990, 353). In other words, the contemporary debate is characterized by *dialetheic agnosticism*. This description of dialetheia and non-contradiction is very prescient and accurate. However, it must be noted that agnosticism concerning the LNC constitutes a rejection of the LNC because even the possibility of dialetheia violates the LNC.

It is possible that Mark Sainsbury came to what might be the most pragmatic strategy when it comes to a refutation of dialetheism. "The only strategy is to examine the paradoxes one by one, and show in each case that the best account is non-dialetheic" (Sainsbury, 1997, 1). This will be my approach here. I will argue that each of the dialetheia cited by dialetheists is not a dialetheia at all. To do so, however, I must first further explicate and formalize the LNC and its converse.

4. Making a Distinguo: Formalizing the Converse of the Law of Contradiction

The usual formal expression of LNC, $\neg(A \wedge \neg A)$, lacks the specificity of the actual LNC. A full expression of the LNC would include that an attribute and its opposite can exist at two different times or in two different respects or both. These exceptions are usually ignored, but one can make them a part of a more verbose formal expression of the LNC:

$$\neg(A_{r(1),\, t(1)} \wedge \neg A_{r(1),\, t(1)})$$

In this case, the propositions A and ¬A are understood within a particular respect r(1) and a particular time t(1). This expression fully defines a true dialetheia that, if found, would falsify the classical metaphysical understanding of LNC. The two sides of a contradiction must be at the same time and in the same respect for it to be a true dialetheia and violate the LNC. For instance, in the case of a murder

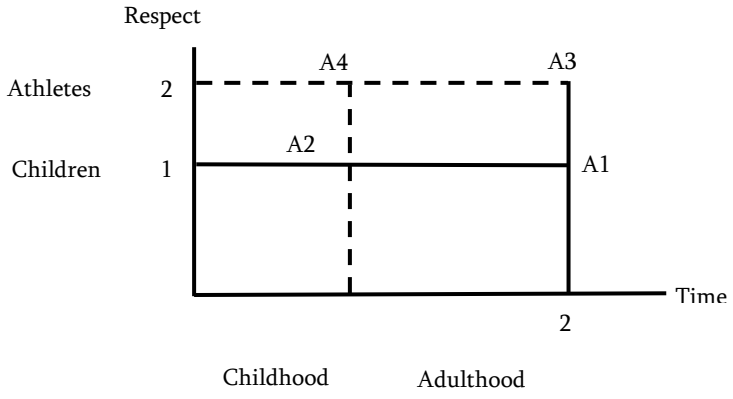
trial, the defendant is either innocent or guilty of the murder, not both, or in the case of a pregnancy, a woman is either pregnant or not pregnant, not both.

The logical converse of the LNC (CLNC) suggests that it *is possible* for the same object to have and not have a certain attribute in different respects and/or at different times. The name for this apparent contradiction is a *distinguo*—a sentence or pair of sentences that appear contradictory but are not, due to differences in time and/or respect. For instance, a door that is painted white at dusk is white with respect to its local color but blue (not white) with respect to its optical color. Hence, the door is white and not white simultaneously without violating the LNC. One can express the converse of the LNC (CLNC) formally in this way:

$$(A_{r(1),\,t(1)} \wedge \neg A_{r(2),\,t(1)}) \vee (A_{r(1),\,t(1)} \wedge \neg A_{r(1),\,t(2)}) \vee (A_{r(1),\,t(1)} \wedge \neg A_{r(2),\,t(2)})$$

This states that there is no logical contradiction between A and ¬A so long as it is within different respects—r(1) and r(2)—or at different times—t(1) and t(2)—or both. For instance, the sentence 'the man is tall and not tall' is not a contradiction so long as the phrase 'the man is tall' is meant with respect to a group of children, and 'not tall' is meant with respect to a group of adult basketball players. The man is both tall and not tall simultaneously, but in two different respects. Similarly, the man could be both tall and not tall with respect to just one group of people, but at two different times—he is 'not tall' when he is an infant and 'tall' when he is an adult. Hence, the phrase, 'that man is both tall and not tall,' is not a contradiction that violates the LNC but rather a distinguo that does not violate the LNC.

To further visualize how distinguos work across respects and times, one can draw a simple diagram putting metaphysical respect on the y-axis and time on the x-axis.



This diagram represents various cases of A, and each case can be understood with a phrase.

> A1 is in r(1) and t2: The man is tall with respect to children in adulthood.
>
> A2 is in r(1) and t1: The man is not tall with respect to the same children in childhood.
>
> A3 is in r(2) and t2: The man is not tall with respect to a team of basketball players in adulthood.

While the sentence 'The man is tall and not tall' is an apparent contradiction, by the converse of the LNC, neither (A1 ∧ A2) nor (A1 ∧ A3) are logical contradictions, nor is (A2 ∧ A3), since they occur at different times and in different respects. One could even construct an A4 case:

> A4 in r(2) and t1: The man is not tall with respect to a team of basketball players in childhood.

According to the LNC/CLNC, all four of these cases of A can be true and coexist metaphysically without contradiction or inconsistency.

One might ask here whether time is truly a special case or just another part of metaphysical respect. While Aristotle separates time from respect, I believe that, finally, time is simply another possible respect. Time does earn a special status in everyday utilization because it is the most intuitive and widely accepted form of respect through which apparent contradictions can commonly be resolved. Nevertheless, I believe nothing is lost if time is grouped in with metaphysical respect more broadly. If this is the case, one can simplify the LNC and CLNC to the following:

$$\text{LNC} = \neg(\text{Ar}(1) \wedge \neg\text{Ar}(1))$$

$$\text{CLNC} = (\text{Ar}(1) \wedge \neg\text{Ar}(2))$$

I will use these formalizations going forward in formalizing allegedly true contradictions as distinguos.

While these formalizations are new, I propose that the CLNC and the concept of a distinguo is implied already in Aristotle from the fallacy of sweeping generalizations (*secundum quid* (167a1-20)) and the fallacy of missing the point (*ignoratio elenchi* (167a20-35 & 168a17-168b10)). Aristotle never explicitly discussed these fallacies in the context of defending the LNC, but the passages tacitly allude to one another by parallelisms in language. The fallacy of *secundum quid* applies when someone makes a sweeping generalization. More precisely put, an object is misunderstood as being a certain way in an unqualified respect when it is truly meant in a qualified respect. For instance, if one claims, 'that mug is black'

when it has some white speckles, one could incorrectly conclude 'that mug is black and not black (due to the white speckles),' which would violate the LNC. Correctly understood, 'that mug is black' ought to be understood in a qualified sense, meaning 'mostly black.' I am convinced by Botting (2014, 168) that *secundum quid* is a special case of the broader fallacy *ignoratio elenchi,* which applies when something is misunderstood as being true in one respect, when it is only true in another respect. One can resolve either of these fallacies by clearly stating the distinguo and listing the relevant differences in respects. For instance, 'the mug is black *qua* being mostly black' and 'the mug is not black *qua* its white speckles.' I will suggest that metaphysical dialetheists commonly fall into either *secundum quid* or *ignoratio elenchi*—the resolutions of which both depend fundamentally on defining metaphysical respect and distinguo by way of the CLNC.

5. Defining Metaphysical Respect

What does metaphysical respect or *qua* mean in this discussion? I believe Botting comes closer than any others to defining metaphysical respect when he wrote that "it is a mistake to think of 'with respect to his teeth' as any part of the content or as playing any semantic role within the sentence. Rather, it [qua/respect] has an inferential role. It tells you what respect you have to speak, should you wish to agree or disagree with me; it tells you what has to be the case in order for logical relations to hold" (2014, 168). I will further develop the idea of respect *playing an inferential role* by proposing that *qua* or a metaphysical respect is *the collection of relevant preconditions that are sufficient for alethic evaluation*, where the relevant conditions are those implied by the beings involved and their relationships to one another.

For instance, consider if one believed that 'Mount Everest is the tallest mountain.' To evaluate whether this is true or false, there needs to be various preconditions taken into consideration. Without such preconditions or if the collection of preconditions changes, then the truth value of a proposition might change. For instance, Mount Everest is not the tallest mountain *qua* all the mountains in the solar system (that goes to Olympus Mons on Mars). I say a respect is a *collection* of preconditions, because there can be various relevant preconditions within a respect, but they are usually dynamically taken for granted or assumed. For instance, we take as a precondition that Mount Everest is the tallest mountain *qua* difference of elevation from sea level to summit; since the tallest mountain *qua* the distance from the center of the Earth is Chimborazo in Ecuador. This is due to the Earth's being an oblate sphere, and the curve of the Earth pushes this mountain higher than Mount Everest from the center of the Earth. The tallest mountain *qua*

its height from base to summit is Mauna Loa in Hawaii, whose base begins well below sea level. For those who might think no such preconditions are required for alethic evaluation, consider that without respect, something is necessarily indefinite; for instance, 'Mount Everest is the tallest mountain *qua* nothing at all' is indefinite and cannot be evaluated for alethic content.

So, when someone appreciates Mount Everest as the tallest mountain, this must be meant with the relevant preconditions—e.g., *qua* measured from sea level to summit, *qua* on the Earth, *qua* that exists today, and so on. Practically speaking, one pins down the relevant respect from context, but theoretically speaking, there is a wide range of possible respects and therefore truth values for the sentence 'Mount Everest is the tallest mountain.' Of course, there are changes to respect where the sentence would remain true—for instance, *qua* being made of granite or *qua* being in Nepal and China or some other continent—would not change the truth value of the sentence about the mountain's relative size. Only some of the preconditions are relevant and sufficient to make an alethic evaluation of the sentence. The relevant preconditions are implied by the beings involved and their relationships—e.g., 'Mount Everest,' 'is the tallest' (or of 'being' and 'tallest'), and 'mountain,' and nothing else. When these preconditions change (either implicitly or explicitly) but are considered simultaneously, they cause a sentence to become true in one respect and false in another, which results in a distinguo.

One might object that the example of the height of a mountain is a comparison which must always be relative, but that a simple statement of fact would not depend on such variable preconditions. This, however, is not true. Even simple statements of fact depend on respect since these are the preconditions sufficient to make an alethic evaluation. Take, for instance, the case above of the door painted white, but whose optical color appears blue at dusk. The simple fact of the door being white depends on the respect *qua* local color not *qua* optical color.

If this is the case, however, one might then object that if everything must be submitted to the action of metaphysical respect, this must lead to such a radical relativism that it amounts to explosion, trivialism, or nihilism. I disagree that the CLNC results in such relativism. The world is quite large and full of many, many things and ways of seeing and experiencing those things. A white door's optical color is pink at dawn, grey in the shade, black on a moonless night, blue at dusk, and so on. If beings themselves are vague, variegated, and manifold, that does not mean they are exploded or trivial; rather, it means that metaphysical respect makes it possible to adequately specify so many beings and attributes with only a limited number of words and expressions. The fact that words and phrases must do double

duty (distinguos) is unavoidable with such a large number of things described with so few words.

6. Contradictory Concepts and Sorites Paradoxes are Distinguos

Now I will use the LNC/CLNC and the concept of distinguo to respond to dialetheism. I begin by showing that contradictory concepts and sorites paradoxes can be understood as distinguos without falsifying the classical understanding of LNC. In Section 6, I will introduce a new type of distinguo—a *quatology*—and show that self-referential paradoxes are not dialetheias, do not violate the LNC, and are not explosive.

6.1. Contradictory Concepts are Distinguos

Priest claims that the contradictory concepts that people experience every day are dialetheias (2019, 50). He quotes Plato's example of Leontius' corpses from *The Republic* (439e-440a) of both not wanting to and wanting to look at executed corpses by the side of the road. This is equivalent, Priest mentions, to modern people being disgusted by but also slowing down at the sight of a grizzly traffic accident.

Arenhart (2021) points out that there is already a problem with Priest's argument, because saying something is both A and B is not the same as saying something is both A and ¬A. But let's put this response aside and say that wanting-to-look and not-wanting-to-look does conform to the A and ¬A structure.

I propose that these apparent dialetheias are instead distinguos. This is clear once one considers that it is in one respect that one wants to look and in another respect one does not. One is attracted *qua* the unique publicity of another person's suffering, but one is repulsed *qua* the horror of the physical carnage. Plato says as much in the passage Priest quoted from *The Republic*. Precisely in the story of Leontius' corpses, Plato is saying that Leontius' motivations are being pulled in two different respects—it is the appetitive soul that wants to look at the dead bodies, but the spirited part of the soul is resisting (439d). So even in the ancient example that Priest cites, the case is a distinguo, not a true contradiction. This example can be expressed using the formalization above of the LNC/CLNC. One's will is being pulled towards looking at the car accident (P) with respect to *curiosity* (c), and being pulled away or repulsed (¬P) with respect to *disgust* (d) at the same time.

$$(P_{r(c)} \wedge \neg P_{r(d)})$$

If one wanted to comment in an unqualified sense, a true statement about someone's experience might be something like 'I was ambivalent about looking at the corpses.'

Priest does briefly consider and then quickly rejects the possibility that this could be resolved using a distinguo. He writes, "when one meets an apparent contradiction, a natural way to try to avoid it is to draw an appropriate 'distinguo' or distinction. To say that it is 3 pm and 8 pm is a contradiction. The contradiction disappears once we note that it is 3 pm in New York, and 8 pm in London" (2019, 7). Despite understanding the concept, Priest rejects being able to use such a distinguo to resolve the contradiction since, he says, "what is at issue here is the phenomenological state in which the agent finds themself, and this is a unity. It does not fall apart cleanly into two neat fragments. Even if it is produced by different parts of the soul, it, itself, is a single conflicted state of a single agent" (8). In other words, since Priest sees wanting-to-look-and-not-wanting-to-look as a unified phenomenological or experiential state, it must be a dialetheia.

If, however, one recognizes and takes the CLNC seriously, then it *is possible* for a being to have contradictory attributes in one simultaneous phenomenological state so long as they are in different respects. And, conversely, if one ignores the CLNC, one falls into the fallacy of *secundum quid*. Wanting-to-look and not-wanting-to-look do not exist in an unqualified respect, but in separate qualified respects. Plato understood this as different parts of a tripart soul pulling against each other. A modern person understands it in terms of there being competing anatomical and neurological modules that operate all at once and work at cross purposes to influence behavior. Each of these modules competes with the other to create a complex, but not truly contradictory, phenomenological or experiential state. This mental state is not dialetheic because each attribute only exists with respect to a different module inside of a complex being that is capable of complex states.

Another example of a contradictory concept Priest cites is the scenario of walking through a door and, for a moment, being precisely both in- and outside of a room. Again, Priest here falls into the *secundum quid* fallacy because he treats the predicates 'in the room' and 'out of the room' as unconditioned (and therefore contradicting each other), when they are qualified statements. One is inside the room (I) with respect to the front half of one's body (f), and outside the room with respect to the back half of the person (b).

$$(I_{r(f)} \wedge \neg I_{r(b)})$$

A correct unconditioned statement about the man's phenomenological state would be something like: 'The man is halfway out of the room.' This statement is not a dialetheia, but it is a statement that might need a distinguo to correctly specify what one is referring to or means in what respect.

For further evidence or illustration that contradictory concepts are merely distinguo, consider the following examples.

Multi-Tasking: Human beings are quite natural multi-taskers. For instance, one can walk (W) and chew gum (i.e., not walk) (¬W) at the same time—in two different respects—namely, with one's mouth (m) and with one's feet (f).

$$(W_{r(m)} \wedge \neg W_{r(f)})$$

One could correctly say such a person is in a complex phenomenological state one might characterize by saying: 'the person is diverting themself in various ways' or 'the person is multi-tasking.'

Gas-and-Break-Pedal: Consider pressing on the brake and the gas pedal of a car at once. The engine revs, but the car stands still. One falls into *secundum quid* if one believes that car-moving (M) and car-not-moving (¬M) are both unqualified when they are both qualified attributes. In other words, there are two pedals that, when each is pressed, engage a different mechanical module that gives rise to a complex state of the system. There is not one pedal that, when pressed engages a single mechanical module that makes the car go-and-not-go in the same respect. So such car or mechanism exists. The car is driving (D) *qua* its engine revving applying forward impetus (e), but it is not driving (¬D) *qua* its brakes stopping forward motion (b).

$$(D_{r(e)} \wedge \neg D_{r(b)})$$

With respect to the car as a whole, in an unconditioned sense, the care is a complex state one might characterize as 'being jammed' or 'being stuck.'

Tug-of-War. In a game of tug-of-war, two different forces act on the rope in two different respects. The rope is being pulled to the left (P) with respect to the blue team (b), and the rope is being pulled to the right (¬P) with respect to the green team (g) at the same time.

$$(P_{r(b)} \wedge \neg P_{r(g)})$$

With respect to the rope as a whole, it is in a complex state one might characterize by saying 'the rope is under tension.'

In any of these cases, and in any other example of a contradictory concept, the scenario conforms to the structure of a distinguo. If one were attached emotionally to the word 'contradiction' and still wanted to use it, one could accurately say these examples are all contradictions *qua* being a distinguo (in at least two respects), but, arguably, these are not contradictions *qua* dialetheias (in one respect or unconditionally).

6.2. Sorites Paradoxes are Distinguos

Another major example of true contradictions cited by dialetheists are sorites paradoxes. Here, I will argue that these also conform to the structure of a distinguo and do not violate the LNC.[1]

For attributes that involve vagueness, such as that of baldness, making an alethic evaluation depends on determining respect. Since the subject is vague already, the determination of respect is necessarily and acceptably arbitrary. To comprehend any vague quantity of as a unity, one must cut it off somewhere. For example, one might regard being bald with respect to a) having no more than 30 hairs on one's head, or b) having no more than 300 hairs, or c) being perfectly shaved, or d) having no live hair follicles on the crown of one's head, or e) being similar to my grandpa's head, and so forth. Therefore, it follows quite easily that a man with some number of hairs could at the same time be both bald (B) and not bald (¬B) if considered in two different respects (for instance, r(a) and r(b)) at the same time:

$$(B_{r(a)} \wedge \neg B_{r(b)})$$

By way of metaphysical respect, one can apprehend vague attributes without giving rise to a dialetheia and giving rise to a distinguo instead.

A major sorites paradox commonly cited as evidence of dialetheism is the case of Zeno's Arrow (Priest 2006a; Tahko 2009, 41-42). Zeno's arrow paradox depends on the orthodox theory of motion, Russell's 'at-at' account or cinematic model, which considers motion an infinite series of still frames. If an arrow fired from a bow moves towards a target, its velocity is zero in each still-frame slice of time. Priest suggests that it is absurd to add up infinitely many stationary arrows and conclude that that is motion. Instead, Priest applies an alternative account of motion made by Hegel. He proposes that, at each instant, the arrow is simultaneously and paradoxically arriving and departing from that same location. Priest considers it to be dialetheic for the arrow to be arriving and departing since it is then both being there and not being there simultaneously.

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[1] There are already many well-developed treatments of vagueness. My goal here is certainly not to provide a full alternative treatment of vagueness and sorties paradoxes, but only to discuss dialetheists use of sorties paradoxes and therefore vagueness. I argue here, narrowly, that sorties paradoxes can be explained without reference to dialetheias and instead by reference to distinguo. I will say that popular treatments of vagueness such as supervaluationism, degree theories and fuzzy logic, epistemicism, and contextualism, typically focus on the semantics of vague predicates. In contrast with these, an approach based on metaphysical respect and distinguo might address vagueness on metaphysical terms. While this is interesting, further discussion of vagueness and metaphysical respect is well out of scope for this discussion.

Once again, I believe here Priest has fallen into *secundum quid* because he considers the arrow being at a point and not being at that point as unqualified attributes when they are qualified *qua* arriving at the point and departing from it. The thereness (X) and not-thereness (¬X) of the arrow are understood in two different respects, namely, *qua* arriving at (a) and *qua* departing from (d) that spot.

$$(X_{r(a)} \wedge \neg X_{r(d)})$$

The arrow arriving and departing simultaneously is a dialetheia only if one mistakes unqualified for qualified attributes. By applying the CLNC to this case and similar ones, one can make a distinguo and avoid dialetheia.

7. Self-Referential Paradoxes are Quatologies

Arguably, the strongest examples of dialetheia cited by metaphysical dialetheists are paradoxes of self-reference. Aristotle never discussed these, and *prima facie*, it appears as if such paradoxes would falsify the classical conception of the LNC. Here, I propose that what are called paradoxes of self-reference are a special sort of distinguo, that I will call a *quatology*, that does not falsify the classical conception of the LNC nor is explosive.

I call a quatology *a statement whose respect necessarily entails the opposite of its attribute*. Using our complete expression of the LNC above, one can express a quatology formally (I use Ω to indicate a quatology):

$$(A_{r(1)} \vdash \neg A \wedge \neg A_{r(2)} \vdash A) \Rightarrow \Omega$$

A quatology is a distinguo because it has different inferential meanings when considered from different respects. What makes it different from an ordinary distinguo is that no matter which respect one considers the statement from, the opposite of the attribute is necessarily entailed within that respect.

The prototypical example of a quatology is the liar's paradox (aka the Liar)—'this sentence is a lie.' The attribute/respect of the Liar 'is a lie' (L) and 'is not a lie' (¬L) are necessarily entailed in the opposite respects in which the sentence is understood. If one understands the sentence to indicate the statement's falsehood (L), this respect necessarily entails not being a lie (¬L). If, alternatively, one understands the sentence to indicate the statement's truth (¬L), then that respect necessarily entails being a lie (L). Therefore, the liar paradox matches the formalism of quatology above:

$$(L_{r(1)} \vdash \neg L \wedge \neg L_{r(2)} \vdash L) \Rightarrow \Omega$$

One can conclude, therefore, that the Liar is a quatology.

To understand a quatology better, consider an analogy with a trick door. Imagine a door that has a doorknob and an unlocked deadbolt. The door is closed, but the deadbolt is open. However, when one turns the knob and pulls on this door, it does not open. The trick is, when one turns the knob to open the door, a hidden mechanism throws the deadbolt, locking the door. Once the doorknob turns back, the mechanism opens the deadbolt again, unlocking the door. So, the door is openable (with respect to the deadbolt being unlocked) but unopenable (with respect to turning the knob which causes the deadbolt to lock). Put one way: the door is not a door. Like this door, quatologies also have a sort of invisible mechanism that makes them flip their respect and attributes automatically and reflexively. As one considers a quatology from one respect, its attribute changes reflexively so that the opposite attribute is always entailed in the other respect. As one takes up the quatology from the other respect, it automatically entails the opposite attribute again.

The barber paradox also conforms to the structure of a quatology. The barber paradox states that 'The barber is he who shaves those who do not shave themselves. Who shaves the barber?' For any answer one might give, the riddle has set up the respect and attribute to entail each other's opposites. *Qua* being the barber, he does not shave himself, and *qua* shaving himself, he is not the barber. If the barber shaves himself (SB), that entails the respect that he cannot be the shaving barber (¬SB), but if the barber does not shave himself (¬SB), this entails that he must be the shaving barber (SB).

$$(SB_{r(1) \vdash \neg SB} \wedge \neg SB_{r(2) \vdash SB}) \Rightarrow \Omega$$

This entailment of the opposite attribute within the current respect fits the definition of a quatology. As one modulates respect or attribute, the opposite attribute or respect changes simultaneously and reflexively, like the trick doorknob and deadbolt above. Russell called this maneuver a "vicious circle" (Mancosu et al., 2009, 19). He meant that quatologies bend in on themselves and recursively hide their alethic value, like the trick door hides what is behind it—as one opens them, they shut themselves—and therefore, they resemble a sentence with alethic content and yet necessarily and persistently deny anyone ever apprehending that content.

Here, one might object that a quatology is nothing new, and so it is simply a neologism. Dialetheists might argue that a quatology is just another name for what they call a 'truth glut' or a 'true contradiction.' Traditional classical logicians or metaphysicians might say a quatology is just another name for 'truth gaps' and are false or artificial contradictions. A supporter of the semantic argument against dialetheism might argue that a quatology is just a needlessly complex formalization of semantic pathology. However, I argue here that quatologies are a wholly separate,

different, and unique sort of being whose alethic content is necessarily unavailable. The quatology cannot be categorized as having a knowable athletic content, whether true, false, both (glut), or neither (gap). Their alethic content is unavailable, just as it is impossible to correctly determine what the trick door above is precisely. Is it a door or a wall? It is a door, a wall, and it is both and neither. It is alethically non-determinative. Like dark matter in astrophysics or the platypus in zoology, a quatology violates all Manichean categorizations and is singularly unique. Its closest cousin in language is the tautology, which is also a unique kind. Quatologies are, in a sense, metaphysically deaf/mute. They are entirely neutral to everything. Whether one considers them semantically, psychologically, or ontologically, in every case, they recoil away from apprehension, just as the fruit above or the water below Tantalus recedes from his grasp.

7.1. Quatologies are Not Explosive

At first, the deaf/mute nature of quatologies, their vicious circle, makes them appear to be contradictions and to be logically explosive. But quatologies, like their cousins, tautologies, neither violate the LNC/CLNC nor are explosive. This is because their athletic content is unavailable, and so they neither add to nor remove anything from the derivations they are part of. This makes a quatology behave much like its cousin, the tautology. For instance:

> Socrates is a man.
>
> All men are mortal.
>
> Socrates is Socrates
>
> Therefore, Socrates is mortal.

The tautology 'Socrates is Socrates' does not add to or remove anything from the derivation. I propose that quatologies operate the same way as tautologies. Since quatologies do not add or remove anything, they do not cause explosion or lead to trivialism. For instance:

> A false statement is a lie.
>
> 'The sky is green' is a false statement.
>
> This statement is a lie.
>
> Therefore, 'The sky is green' is a lie.

When one adds the quatology, 'This statement is a lie,' to this derivation, the derivation does not gain or lose anything. There is no content in that line of the derivation. And so, the quatology is not explosive to the derivation.

7.2. Advanced Self-Referential Paradoxes

One might object that the Liar and the Barber are simple versions of self-referential paradoxes, and there exist significantly strengthened versions of these that present a significant challenge to the semantic response to dialetheism and might challenge categorizing them as quatologies or cause other issues. Here I will discuss two such strengthened paradoxes—the revenge liar and the open pair paradox—and show that these are also quatologies.

The semantic critique of dialetheism states that the liar paradox is semantically meaningless (Warren 2024). The revenge liar, therefore, states (ibid.):

> This sentence is semantically meaningless.

The revenge liar poses a challenge to the semantic critique because the contradiction is still present since, if the sentence is semantically meaningless, then it is not semantically meaningless, and if it is, then it is not. This use of more sophisticated contradictions (such as this revenge liar) is, I believe, what leads some thinkers to feel forced into credence in some modest form of dialetheism or dialetheic agnosticism.

So, how is a quatological approach immune to such revenge liars? Couldn't there be a revenge-style refutation of quatology? Something akin to:

> This sentence has no determinate alethic content (because it is a quatology).

At first, it seems as if this might pose the same problem as with the semantic response. However, this revenge-style statement does not pose an issue, since it itself is another quatology. This is clear, first, because that was already the premise of the example, and it is stated parenthetically. If there is any doubt, however, one can represent this statement formally and see that it is a quatology. If a sentence without alethic content ($\neg AC$) is merely an utterance, and a sentence with alethic content (AC) is an actual sentence, then the above phrase can be expressed in the following expression which is a quatology:

$$(AC_{r(1) \vdash \neg AC} \wedge \neg AC_{r(2) \vdash AC}) \Rightarrow \Omega$$

Moreover, no matter how many revenges one takes, one simply constructs another quatology. This suggests that quatologies are not susceptible to revenge-style refutations since the result is not a dialetheia but just another quatology.

Another paradox that represents a significant challenge to the semantic response to dialetheism is the open pair paradox and its revenges and derivatives. I will show, however, that these do not pose a problem to this account.

The open pair paradox looks like this:

(1) (2) is false

(2) (1) is false

With remarkable clarity, Armour-Garb & Woodbridge (2006) go through the open pair and various attempted solutions, strengthenings, and revenge versions. They show that the open pair leads not only to an unresolvable contradiction but also to an indeterminate truth-value assignment, which, they claim, is problematic for both "consistentists" (those in support of the LNC) and dialetheists (2006, 407-408). What Armour-Garb & Woodbridge have discovered, I believe, is that the open par is a quatology, and the inability they point out to get a "consistent truth-value assignment" from such a statement is synonymous to what I mean when I say that a quatology's aletheic content is necessarily unavailable (2006, 413).

Arguably, the open pair is a near-perfect exemplar of a quatology. The first premise states that it necessarily entails the opposite of the second premise and vice versa. One could rewrite the open pair this way to make its quatological structure explicit.

(1) $\vdash \neg(2)$

(2) $\vdash \neg(1)$

Although it is not as clear as the above example, one can express this system exclusively either in terms of (1) or in terms of (2), which yields the following two quatologies:

$((1)_{r(1) \vdash \neg(1)} \wedge \neg (1)_{r(2) \vdash (1)}) \Rightarrow \Omega$

$((2)_{r(1) \vdash \neg(2)} \wedge \neg (2)_{r(2) \vdash (2)}) \Rightarrow \Omega$

Hence, the open pair represents a pair of quatologies chained together. But chaining more quatologies together does not make them any less quatologies.

What is more, the open pair has various variants and stregthenings such as the asymmetric open pair:

(1) (2) is false

(2) (2) is false $\rightarrow$ (1) is false.

The asymmetric open pair also yields the same pair of quatologies, where with respect to (1), $\neg(1)$, and vice versa, and the same for (2):

$$((1)_{r(1) \vdash \neg(1)} \wedge \neg (1)_{r(2) \vdash (1)}) \Rightarrow \Omega$$

$$((2)_{r(1) \vdash \neg(2)} \wedge \neg (2)_{r(2) \vdash (2)}) \Rightarrow \Omega$$

Hence, the open pair and all of its variants and strengthenings are all quatologies. From this perspective, paradoxes like the open pair cease to be problems

and become predictable and unremarkable (even somewhat boring) inert features of the logical landscape.

This handling of the revenge liar and open pair paradoxes suggests that the quatological response to dialetheia might represent an improvement over the more popular semantic response. Moreover, this approach saves us from being driven into modest forms of dialetheism or dialetheic agnosticism, which is largely motivated by the failure of the semantic response to cope with such strengthened paradoxes.

8. Some Speculative Consequences for Logic, Mathematics, and Physics

Very briefly, I will speculate about some of the possible consequences of recognizing distinguos and quatologies in logic, mathematics, and physics. Primarily, the outcome would appear to be a shift from demanding unified monolithic systems of knowledge in these fields to allowing for a branching structure of various, coexisting logical, mathematical, and physical systems that can all exist simultaneously, albeit in different respects.

Take, for instance, the barber paradox. If it is a quatology, as I argued in Section 5.1., then that suggests that its analog, the Russell set or R set, is also a quatology. However, if the R set is a quatology, it is not explosive. If this is so, one cannot use the existence of the R set to refute Frege's naïve set theory, removing the key motivation to develop additional set theories. Likewise, if quatologies are non-explosive, it calls into question Gödel's Incompleteness Theorem. The theorem uses the rules of Russell's Principia Mathematica (PM) that specifically outlaw self-referential language. Gödel uses the sentence G_F — 'I am not provable' — to refute the PM and suggest that any logical system must be either inconsistent or incomplete. However, G_F is a quatology since, analogously to the liar paradox, being provable (P) is necessarily entailed in the respect from which you understand the sentence 'I am not provable' (¬P) since that is itself a provable assertion.

$$(P_{r(1) \vdash \neg P} \wedge \neg P_{r(2) \vdash P}) \Rightarrow \Omega$$

Gödel himself claimed that syntactical incompleteness was an analog to the liar paradox, the only difference being swapping 'is a lie' for 'is provable' (Gödel, 1931, 40). If G_F is a quatology and is non-explosive, then G_F cannot be used within the derivation of the incompleteness theorem, rendering the theorem, from this perspective, invalid. Whereas these apparent contradictions caused crises for naïve set theory and PM and precipitated abandoning these systems for newer alternatives, by applying CLNC and quatology, one might rehabilitate these systems. It appears they can each live alongside other logical systems, each one conditioned by a different metaphysical respect.

In general, this means it is easier (but not trivial) to create a mathematical system, and overall, many more (but not a trivially infinite amount of) proofs and systems can coexist, and mathematics as a whole would resemble a branching tree where each ramification is another distinction in respect. For instance, Euclidean and Lobachevskian geometries are two such branches that split over the metaphysical respect of the nature of parallel lines.

There might be additional implications for physics. It appears the phenomena entailed in quantum mechanics challenge the LNC because of wave-particle duality (Putnam 1979; Bueno & Colyvan 2004; Tahko 2009, 43-44; Horn 2024, Section 4). In other words, scientists have proved that theoretically matter is two entirely different things at once, namely, a wave and a particle. For the LNC, being a particle and not being a particle represents a problem *prima facie*. There is, however, a distinguo response to wave-particle duality, since each state of matter always manifests at different times and in different respects. Subatomic particles appear to act as waves when not interacting with anything (in one respect) and act as particles when interacting with something (in another respect). To this, a dialetheist might respond by saying that even if this were so, there must be a fuzzy time after a quantum wave begins collapsing but before it is fully a particle during which matter is both a particle and a wave. This, however, is merely a rehashing of the sorites paradox that I addressed above.

Moreover, at the heart of contemporary physics sits the presupposition that there is a crisis of inconsistency between general relativity and quantum mechanics. Some characterize the greatest challenge of all contemporary physics as resolving this crisis in a theory of everything. However, considering metaphysical respect might severely reduce the urgency of this supposed crisis or eliminate it.

9. Conclusion

In this paper, I sought to move the discourse on paradox forward by proposing a novel response to dialetheism and defending the classical law of non-contradiction (LNC). I began by adding greater definition to the concept of metaphysical respect and the converse of the LNC (CLNC). Using the CLNC, I formalized the concept of distinguo, and I defined a type of distinguo I call a 'quatology.' I proposed that commonly cited dialetheia are not true contradictions at all, but are either distinguos or quatologies. These do not falsify the classical conception of the LNC, nor are they logically explosive. Without these dialetheia, this significantly diminishes credence in at least metaphysical dialetheism. Notably, this discussion has been wholly metaphysical and does not speak to (or against) semantic or logical forms of dialetheism (e.g., diamathematism) and paraconsistent logics. This approach is

significantly different from the more popular semantic response to dialetheism that struggles to cope with strengthened paradoxes of self-reference. I briefly made some speculations on the possible consequences of this view on logic, mathematics, and physics.

This paper is too brief to do justice to this complex and broad topic. It is only an initial attempt at discussing and formulating these concepts. It leaves open various avenues for further research. What is a metaphysical respect precisely? How does it relate precisely to various theories of metaphysics and truth? What consequences would the conclusions of this discourse have on paraconsistent logics, if any? If key paradoxes such as the liar paradox and barber's paradox are quatologies (and therefore not explosive), what are the implications for mathematical and logical systems that have treated those paradoxes as explosive? What are other possible applications of distinguos and quatologies? My goal here has been to propose a new defense of the LNC and simultaneously open discussion and further research into the converse of the LNC, metaphysical respect, distinguos, and quatologies.

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