

ORIGINAL ARTICLE

Sources of hyperintensionality

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Email: giorgio.lenta@unito.it**Abstract**

A wide variety of concepts are nowadays considered to be hyperintensional, and some of them do not seem to involve our representational attitudes. This led some philosophers to identify and defend a notion of *worldly* hyperintensionality: the idea that some hyperintensional phenomena derive from features of objective reality, independently of how we represent it. Against this view, Darragh Byrne and Naomi Thompson argue that the correct understanding of such phenomena must be conceptualist in nature, and claim that hyperintensionality always derives from features of representations. In the present work I defend the genuine distinction between worldly and representational hyperintensionality through a new framing of the issue: the comparison with worldly intensionality. I argue that locating the sources of hyperintensionality should not be affected by preferences towards any specific semantic framework, and reject Byrne and Thompson's argument against worldly hyperintensionality.

KEYWORDS

conceptualism, *de re* modality, Fregean semantics, grounding, hyperintensionality, impossible worlds semantics

1 | INTRODUCTION

Hyperintensionality—the failure of substitutivity *salva veritate* between intensionally equivalent expressions—is nowadays one of the most debated topics in logic and philosophy of language.¹ Despite its being a feature of a wide variety of concepts and sentential contexts, most of the literature on such phenomenon has been focusing primarily on its *representational* instances: as widely recognised, hyperintensional contexts are paradigmatically triggered by propositional

¹Two sub-sentential expressions are intensionally equivalent if and only if they denote the same objects at all possible worlds, and two sentences are intensionally equivalent if and only if they are true at the same possible worlds. A concept is said to be hyperintensional when it creates hyperintensional contexts, namely, places in a sentence where substitutivity *salva veritate* of co-intensional expressions fails.

attitudes such as belief, knowledge, supposition, and so on. Thus, hyperintensionality is sometimes characterised as a phenomenon due to some limitations in our cognitive or conceptual faculties.

Recently, the idea of hyperintensionality as an entirely representational phenomenon has been challenged. According to Daniel Nolan, hyperintensionality is often a genuine worldly matter that does not depend on our representations at all. More precisely, Nolan (2014) argues for extending the attribution of hyperintensional features to phenomena outside the realm of representation, introducing a notion of *worldly* hyperintensionality. To clarify this point, Nolan suggests that a good way of classifying phenomena amounts to detecting a principled need for certain kinds of expressive resources to explain them. For instance, modal properties systematically require intensional language to be accounted for, whereas propositional attitudes typically need something more fine-grained. In light of this, he proposes a categorical shift from the language to the phenomena that the language captures. We get a rough picture of his classification from the following passage:

Running might then count as an extensional phenomenon, if we think an account of running can be adequate if it only mentions actual arrangements of legs and bodies. Necessity would then naturally be classified as an intensional phenomenon, needing expressions like ‘necessarily’, that create intensional positions, to capture it. Belief might naturally be classified as a hyperintensional phenomenon, needing an expression like ‘believes that ...’ to adequately capture it. Most theories of phenomena will consist of a variety of sentences, so if we want to assign each phenomenon one label from ‘extensional’, ‘intensional’ and ‘hyperintensional’, it might be best to assign ‘hyperintensional’ if hyperintensional language is needed to capture a phenomenon, ‘intensional’ if intensional but not hyperintensional language is needed, and ‘extensional’ only if no intensional nor hyperintensional language is needed (p. 152).

As Nolan himself notices, such classification might raise some doubts. One might believe that an allegedly extensional phenomenon like running is actually intensional, or even hyperintensional, on a more careful reading. On the other hand, one might stress that necessity can and should be accommodated in a purely extensional way, for instance by means of quantification over worlds. Nonetheless, Nolan believes that even if a fully extensional account for intensional or hyperintensional phenomena was actually available, this would not threaten the idea that the accounted phenomena are *themselves* intensional or hyperintensional under his interpretation; just like the possibility to offer a theory of possible worlds in an extensional language does not undermine the idea that possible worlds are themselves intensional entities. However, as we shall see in more detail, one could still reject the existence of worldly hyperintensionality regardless of Nolan’s classification. In other words, one might still deny that hyperintensionality can have a non-representational source, no matter what kind of language (or semantic framework) we employ to talk about certain phenomena.

The aim of the present work is to defend a genuine distinction between worldly and representational hyperintensionality, and to show that the issue of its source, when properly framed, should not be affected by preferences towards specific semantic frameworks. Therefore, rejecting worldly hyperintensionality merely on the basis of such preferences is not a viable strategy. Moreover, the present work aims to provide reasons for scepticism towards a generalised conceptualist picture for all (or even most) kinds of hyperintensionality.

In order to achieve this, I will first provide a new framing of the notion of worldly hyperintensionality through the comparison with that of *worldly intensionality* (Section 2); then, I will

present the main argument against worldly hyperintensionality in the existing literature, developed by Byrne and Thompson (2019) (Section 3); finally, I will offer two arguments against their view (Section 4). As a result, I will conclude that the comparison with intensional phenomena—upon which Byrne and Thompson also rely—actually supports the existence of a genuine distinction between worldly and representational hyperintensionality.

2 | INTENSIONALITY, HYPERINTENSIONALITY AND THEIR SOURCES

The need for semantic resources able to draw distinctions between intensionally equivalent contents is widely recognised.² However, the view that hyperintensionality can derive directly from the world, rather than only from our representations of it, is more controversial. According to Nolan, the difficulty in accepting such idea has its roots in the common features of the most discussed cases of hyperintensionality—those involving propositional attitudes—which can always be traced back to some limitations in our cognitive or conceptual faculties.

If propositional attitudes exhausted the whole range of hyperintensional phenomena, that would be enough to conclude that hyperintensionality is always a representational matter. In such scenario, having hyperintensional positions in our natural languages could indeed be explained with our inability to have perfect access to all of the intensions associated with each meaningful expression and its corresponding representational content. Another reason why someone might be tempted to regard hyperintensionality as merely representational is that her preferred hyperintensional semantics identifies contents with representational entities. This view has been advocated by Byrne and Thompson (2019), as we shall see in the next section. But first, further clarification on the issue is required.

Nowadays, it is widely accepted that the cases of hyperintensionality triggered by representational attitudes are just a subset of the whole range of hyperintensional phenomena. Following Nolan:

if we find ourselves appealing to hyperintensional distinctions in our theory of non-representational matters, that would be good evidence that hyperintensional phenomena are not just representational (2014, p. 158).

For instance, metaphysics ordinarily deals with notions like grounding, essence, properties and dispositions, all of which seem to require hyperintensional resources to be accounted for.³ Since metaphysics is supposed to be the inquiry on the fundamental structure and nature of reality, and the subject matters of metaphysical theories are typically taken to be non-representational, showing that some fundamental feature of reality requires hyperintensional explanations—for example, models employing fine-grained entities or concepts—hints to the conclusion that hyperintensionality can itself be non-representational, by having its source in some independent feature of the world. Moreover, a number of philosophers have recently argued that hyperintensional explanations often show up even in natural sciences, where subject matters are most clearly non-representational.⁴

Still, such shift from the language to the world must be approached with some caution. The above-mentioned cases share the features of being *about* non-representational subject matters and of requiring hyperintensional resources to be accounted for. But this might not suffice for

²See Berto and Nolan (2021) for an in-depth review of cases where hyperintensional semantic resources are needed.

³See Nolan (2014) for an in-depth discussion.

⁴See, for instance, Jenny (2018), Tan (2019) and Wilson (2021).

concluding that, in such cases, hyperintensionality arises from the world rather than from our representations of it. After all, hyperintensionality has been characterised in linguistic terms as the failure of substitutivity *salva veritate* between co-intensional (linguistic) expressions. Moreover, one might argue that theories themselves can be characterised as linguistic items, regardless of the possibly non-representational nature of their subject matters. Therefore, one might find it reasonable to consider theories as representational objects and, in turn, hyperintensionality as a representational feature of some theories. But then, how are we supposed to flesh out the idea that some instances of hyperintensionality have their ultimate source outside of the (representational) linguistic realm?

To develop an answer, we can start by drawing a comparison with a similar issue concerning intensionality. As is widely recognised, intensional modality can often be read either in the *de dicto* or in the *de re* interpretation. Consider how we ordinarily treat ambiguous cases of alethic modal talk:

(1) The number of my fingers is necessarily even.

Let x range over natural numbers and N stand for a magnitude representing ‘the number of’. On a *de dicto* interpretation, (1) says:

$$(1d) \Box \exists x (N(\text{my fingers}) = x \wedge \text{even}(x))$$

According to (1d), it is necessary that I have an even number of fingers (which is clearly false). A more charitable reading of (1)—on the assumption that I actually have 10 fingers—should be *de re*:

$$(1r) \exists x (N(\text{my fingers}) = x \wedge \Box \text{even}(x))$$

According to (1r), the object denoted by ‘the number of my fingers’ at the actual world—the number 10—necessarily has the property of being even, which is true. Apparently, some statements involve intensional notions because they capture features that reality instantiates objectively, and not because *we represent them intensionally* (whatever that might mean). In light of this, it seems that we can make a case for a notion of *worldly intensionality*. Likewise, some statements might involve hyperintensional notions because they capture features that the world instantiates objectively, and not because we represent the world hyperintensionally. We must avoid the mistake of collapsing the distinction between metaphysics and language, both in the sense of ascribing properties of our representations to the world, and in that of ascribing properties of the world to our representations.

To further clarify this point, consider the case of metaphysical grounding. Just like it seems implausible that the number 10 is necessarily even *because we represent intensional modality like that*, or *because it behaves semantically like that*, it seems equally implausible that the existence of {Socrates} is grounded on the existence of Socrates *because we represent grounding like that*.⁵ In the grounding case, the subject matters of ‘{Socrates} exists’ and ‘Socrates exists’ are non-representational and behave hyperintensionally—we cannot substitute one for the other *salva veritate* despite their being intensionally equivalent—but the grounding relation holds regardless of one’s representational attitudes towards it.

Now, suppose that hyperintensional distinctions are merely the product of our cognitive or conceptual limitations. Of course, one might have some propositional attitude—let us say

⁵{Socrates} is Socrates’ singleton, that is, the set whose only member is Socrates.

belief—towards P , without having the same attitude towards its intensional equivalent Q , because one is able to deduce P but not Q from one's belief base (for instance because Q is syntactically too complex). Or, because one has conceptual limitations that prevent one from grasping the content of Q , though one grasps the content of P . But in putative cases of worldly hyperintensionality, like the just sketched grounding example, what would be the relevant cognitive limitations? One can make a distinction between the existence and identity conditions of {Socrates} and those of Socrates even when one is seemingly on top of all the relevant notions (one understands well who Socrates was, masters set theory perfectly, etc.) and, additionally, one can parse the syntax of all the relevant sentences. In other words, what *cognitive mistake* is one agent making, when one tells apart the existence/identity conditions of Socrates and {Socrates}? This represents a serious challenge for those who tie hyperintensionality to the cognitive or conceptual limitations of agents.⁶

To borrow another example from Nolan, consider the following counterpossible (i.e., a counterfactual conditional with an impossible antecedent):

(2) If there were a piece of steel in the shape of a 36-sided platonic solid, it would have more sides than any piece of steel in the shape of a dodecahedron.

(2) seems to be about pieces of steel and their shapes: 'which blocks of steel have which shapes is not just about us and our representations. It would not be even if steel could take shapes that it in fact cannot' (Berto & Nolan, 2021). Again, the truth of (2) does not seem to depend on our way of conceptualising its subject matter or on the vacuity of counterpossibles within an intensional semantic framework: (2) strikes us as intuitively true even before subscribing to any specific semantic theory. It seems that we cannot account for this fact by intensional means only. But even though we need hyperintensional resources, this does not imply that there is something distinctly representational going on with (2).

In sum, the best way of framing the question about the source of hyperintensionality seems to be through the comparison with the question about the source of intensionality. The property of being necessarily F is intensional because it requires intensional notions to be properly analysed. Intensionality can be characterised as a linguistic phenomenon, but the circumstances that bring about intensionality at the linguistic level do not always derive from representations. In cases of *de re* modality like (1), the intensional features of the language employed to analyse the ascription of a modal property derive directly from the actual possession of that property by the object of which it is ascribed. Intensional modality can be a feature of non-representational objects, not exclusively of the linguistic expressions that we use to describe them. In this sense, intensionality can be worldly. Similarly, hyperintensionality can be worldly, as long as the features that require hyperintensional explanations are directly instantiated by non-representational portions of reality, just like the above-mentioned cases suggest.

As we shall see in the next section, the conceptualist reaction to worldly hyperintensionality parallels the extensionalist reaction to the so-called intensional revolution that took place between the 1960s and 1980s: a time that witnessed the rise of the intensional devices that are nowadays employed across almost any field of philosophical inquiry. Back then, many philosophers were unwilling to take intensionality seriously outside of the merely linguistic-representational domain. A common strategy adopted by extensionalists consisted in paraphrasing intensional concepts by mentioning them in quotation, in order to reinterpret modality as a feature of sentences, instead of a feature of worldly entities. That allowed them to treat every intensional phenomenon as if it was ultimately about representations only.

⁶Thanks to an anonymous referee for highlighting this point.

According to extensionalists, when I assert that Jim is necessarily human, I am not ascribing a property to a non-representational individual, namely Jim himself. What I am really doing is ascribing a property to a sentence: that ‘Jim is human’ is necessary. In other words, within the extensionalist picture there was no place for *de re* modality. Nowadays, this would constitute a rather unorthodox view, as Nolan appropriately points out:

while extensionalism still has some adherents, I think it is fair to say that most philosophers working on necessity, belief and so forth, find these extensionalist maneuvers clumsy, inadequate to the data, and philosophically perverse (2014, p. 155).⁷

What about the conceptualist reaction to worldly hyperintensionality? In what follows I will discuss the main criticism on conceptualist grounds that has been explicitly raised against the idea that hyperintensionality can have its source in the non-representational realm.

3 | AGAINST WORLDLY HYPERINTENSIONALITY

Byrne and Thompson (2019) reject Nolan’s account of worldly hyperintensionality on conceptualist grounds. Even though they accept that hyperintensional language is needed to accurately describe the world, they reject the view that hyperintensionality can genuinely derive from it: ‘hyperintensionality derives from features of representations’ (p. 153).

The authors defend their claim by sketching a Fregean picture of representational hyperintensionality analogous to one that, they argue, can be employed for analysing intensional notions. In their understanding, Fregean accounts hold that linguistic expressions—at least those embedded in intensional contexts—do not refer directly to worldly entities such as objects, properties and states of affairs. Instead, reference is mediated by the *senses*, or *modes of presentation* of the objects denoted by the linguistic expressions.⁸ Hence, what speakers actually express is not the denotations of linguistic expressions—worldly entities that do not depend on our representational faculties—but *ways* in which we conceptualise such denotations: a kind of representation.

Byrne and Thompson do not explicitly subscribe to any specific semantic framework. Instead, they choose to provide some examples to defend their intuition. To see their strategy at work, consider the following sentences:

(3a) It is necessary that $10 = 10$.

(3b) It is necessary that the number of my fingers = 10.

The difference in meaning (and the corresponding difference in truth value) between (3a) and (3b) does not depend on the denotation of ‘10’ and that of ‘the number of my fingers’—that is, the number 10—which is contingently the same. Rather, it depends on the fact that they express two different *senses*, and obviously, substitution *salva veritate* of expressions with different senses can fail. According to Byrne and Thompson, the same happens with ordinary cases of representational hyperintensionality, such as those triggered by propositional attitudes. From a Fregean perspective, propositional attitudes are relations that agents bear with senses. Suppose that Anna does not know that Brian Hugh Warner is Marilyn Manson.

⁷A similar kind of resistance, this time on intensionalist grounds, exists nowadays towards certain kinds of hyperintensional talk. See, for instance, Williamson (2013).

⁸Explaining what sort of entity Fregean senses are supposed to be, metaphysically speaking, is one of the toughest issues that a defender of such view must face; Byrne and Thompson avoid this specific point.

(4a) Anna believes that Marilyn Manson is a great artist.

(4b) Anna believes that Brian Hugh Warner is a great artist.

(4a) and (4b) once again differ in truth value because Anna bears a relation with two different senses, even if the objects to which those senses refer are necessarily the same: for her, ‘Marilyn Manson’ and ‘Brian Hugh Warner’ are each associated with different descriptions, and that is enough to explain the semantic difference between ‘Marilyn Manson is a great artist’ and ‘Brian Hugh Warner is a great artist’ at the hyperintensional level.

After establishing that, the authors summarise what they take to be Nolan’s core thesis in the form of a conditional:

(N) If a subject-matter is not representational, then we cannot explain the fact that we need hyperintensional idioms to describe and explain it in conceptualist terms.

Their second step is to compare (N) with its intensional counterpart:

(M) If a subject-matter is not representational, then we cannot explain the fact that we need intensional idioms to describe and explain it in conceptualist terms.

Finally, they claim that if (M) can be successfully rejected, there is no reason to think that the same cannot be done with (N). Since ‘a Fregean analysis of the non-representational intensional operator *per excellence* [i.e., necessity] is well-known’ (p. 156), they take a case involving necessity—like (3a) versus (3b)—read it in a conceptualist fashion, and take that at face value as evidence against (M). More precisely, they argue that what a sentence like (3a) says is that a certain sense has the property of being necessary, therefore it cannot guarantee truth preservation if one of its constituents is substituted with another one having a different sense.

They conclude that since senses are features of representation, intensionality arises from there, even if the subject matter of a sentence like (3a) is non-representational. In other words, they seem to suggest that the extensionalist move of paraphrasing *de re* modality into *de dicto* modality—treating features of worldly entities as features of representational entities, in this case Fregean senses—is the correct way of approaching the issue of the source of intensionality. By analogy, the same should happen with hyperintensionality:

if there’s a plausible conceptualist account of an intensional locution about a non-representational phenomenon, and if plausible conceptualist accounts of intensional locutions can be extended to deliver plausible conceptualist accounts of hyperintensional ones, why should we expect these extensions to break down when the locutions are about non-representational phenomena? (p. 157).

4 | AGAINST BYRNE AND THOMPSON

In Section 2, I already presented some compelling evidence for rejecting the idea that *de re* intensionality can be systematically paraphrased into *de dicto* intensionality, which is something that Byrne and Thompson seem committed to. However, in what follows I will argue that their argument from analogy can be resisted and their view must be rejected for a number of independent reasons.

4.1 | A matter of semantic taste?

Byrne and Thompson's focus on the possibility of extending an intensional Fregean semantics to its hyperintensional counterpart seems to implicitly assume that the problem of the source of hyperintensionality is ultimately a matter of semantic preferences. But the mere choice of a given semantic framework for settling this kind of issue looks question-begging. If Byrne and Thompson's strategy for showing that hyperintensionality is always representational consists in nothing more than adopting a theory in which semantic contents are *themselves* identified with representational entities, they are just walking in circles. Independent reasons are required for preferring that particular framework—provided that it could exist, which is far from obvious—over any other with equal expressive power.

Otherwise, they are simply claiming something rather trivial, namely that some instances of worldly hyperintensionality might be paraphrased in conceptualist terms, just like the extensionalists did with worldly intensionality. But *why* should we want that? One might offer an argument from ontological parsimony, by endorsing a principle like 'a theory with a lighter ontological commitment is to be preferred to a theory with a heavier one'. But this would simply shift the discussion from the metaphysical problem of the nature of semantic content to the epistemic problem of the trade-off between ontology and ideology.⁹

Furthermore, it is not clear why Fregean senses should be considered less metaphysically problematic than other candidates for the role of meaning identification (such as worlds or truthmakers in the sentential cases, and individual objects and properties in the sub-sentential cases). Again, independent justification for deeming certain ontologies more acceptable than others would be required.¹⁰ Are there strong theoretical advantages to adopt a conceptualist reading, or are conceptualists simply forcing it upon non-representational content? The question becomes even more urgent if we consider how the acceptance of the *de re* intensionality has become part of the orthodoxy, despite the extensionalists' efforts and creative paraphrases, as we have seen in Section 2.

The crucial issue to settle in the present debate is not whether it is possible to have a conceptualist semantics for worldly hyperintensionality, but rather how hyperintensionality arises *regardless of our semantic-theoretic preferences*. Take again the case of *de re* intensional modality. It seems that our justification for accepting it often comes from arguments that do not rely exclusively on semantic considerations. This is most evident with cases of necessary a posteriori truths like 'Hesperus is Phosphorus' or 'water is H₂O', where the modal status of the expressions cannot be established by means of semantic arguments only.¹¹ If we have solid, independent reasons to accept *de re* modality, we should expect our best semantics to capture it accordingly. Generally speaking, the semantic framework is supposed to model the phenomena, not the other way around: we should not attribute features of the framework to the phenomena that it models. If we grant this, Byrne and Thompson's conditional reconstruction of Nolan's view misses the point.

The weakness of Byrne and Thompson's reasoning can be further clarified by employing their own strategy against them. Remember Byrne and Thompson's core thesis: 'hyperintensionality derives from features of representations' (2019, p. 153). Suppose that the mere adoption of a certain semantic framework suffices for establishing that, as they seem to

⁹See Berto and Plebani (2015) for an in-depth discussion.

¹⁰Notice that even though any semantics comes with its own ontological commitment to the entities chosen for representing meanings, appealing to the mere fact that such semantics works at the formal level cannot be used to justify the acceptability of its ontology. Someone might reject a given semantics by judging its ontological commitment problematic, but it is far from clear if and how one could assess a metaphysical claim – like the one concerning the source of hyperintensionality – simply by adopting a specific semantic framework.

¹¹For instance, Kripke (1980) famously provides epistemic and metaphysical arguments for necessary a posteriori truths.

claim. If that was the case, one could develop a similar argument for defending the opposite thesis, namely that hyperintensionality *does not* derive from features of representations. All one needs to do is adopt a semantics for intensional phenomena paired with a non-representational ontology and claim that, by analogy, the same can be done for hyperintensional phenomena.

For instance, suppose that in order to deal with intensional phenomena one adopts a version of Possible Worlds Semantics (PWS) paired with a heavy non-representational modal ontology, such as Lewisian modal realism.¹² According to this view, possible individuals and possible worlds are concrete entities—as opposed to abstract or representational—by no means less real than the actual ones. This enables Lewis to provide a fully extensional analysis of *de re* modal notions, drawing a straightforward non-representational picture of intensionality. In other words, according to Byrne and Thompson's understanding of the relationship between ontology and semantics, such Lewisian framework would locate the source of all kinds of intensionality in the non-representational realm, by assuming the concrete nature of possible worlds and individuals.

Now, it is pretty obvious how one might replicate Byrne and Thompson's move for attributing the worldly nature of intensional content to hyperintensional content: it would suffice to extend a Lewisian realist PWS in a way that accommodates also hyperintensional distinctions. Funnily, in that case we would not even need to *suppose* the existence of such framework: any impossible worlds semantics paired with a form of extended modal realism would do precisely this job.¹³ For instance, Yagisawa (2010) describes a modal space of real—as opposed to fictional or *ersatz*—impossible worlds, which represent any kind of impossibilities by directly instantiating them. If we set aside the extremely controversial notion of *real* impossibilities and we focus on the pure semantic machinery of such framework—just like Byrne and Thompson do with their supposed extended Fregean semantics—we can easily recognise that, by adopting it, we would have a fully non-representational account of hyperintensional content. The distinction between necessary equivalents like 'Marilyn Manson' and 'Brian Hugh Warner' would be captured by the fact that, at some impossible worlds, they do not denote the same individual, regardless of our ways of representing him.¹⁴ Hence, by replicating Byrne and Thompson's reasoning, we would be able to conclude that hyperintensionality *does not* derive from features of representations: after all, we would have a fully non-representational account for hyperintensional content.

To rephrase them again: if there is a plausible *worldly* account of an intensional locution about a non-representational phenomenon, and if plausible *worldly* accounts of intensional locutions can be extended to deliver plausible *worldly* accounts of hyperintensional ones, why should we expect these extensions to break down when the locutions are about *representational* phenomena? If such analogy would not be acceptable since it would mistakenly locate the source of representational hyperintensionality out there in the world, then the same is true for the opposite analogy defended by Byrne and Thompson.

4.2 | Extensibility and granularity

A further issue concerns the alleged extensibility of the Fregean intensional picture to its hyperintensional counterpart, which is far less obvious than Byrne and Thompson claim. Even if a fully Fregean account of intensional locutions is available, does that constitute genuine evidence for the possibility of an extended account which works also for all cases of (*prima facie*) worldly

¹²See Lewis (1986).

¹³See, for instance, Berto and Jago (2018).

¹⁴In his discussion of belief ascriptions Yagisawa (2010, ch. 9) defends a similar view.

hyperintensionality? Byrne and Thompson declare themselves ‘confident that such semantics could be formulated for most of them at least’ (2019, p. 155). However, they do not go further than sketching a counterexample to (M) and claiming that we can reject (N) on the same basis, without addressing the issue of what such extended Fregean semantics should look like. Obviously, they do suggest an equivalence between the basic and the extended framework with respect to ontological commitment: in order to represent meanings both frameworks should include representational entities only (Fregean senses).

But the idea of a Fregean semantics which might be able to deal with *most* kinds of hyperintensionality still sounds a bit too optimistic. So far, several different frameworks have been developed for dealing with variably broad families of hyperintensional phenomena, but none of them had the ambition of providing a systematic account for all or even most hyperintensional phenomena. In the words of Leitgeb (2018):

no system so far has managed to set a general standard or to gain anything like a status of ‘canonicity’ for all hyperintensional operators whatsoever, and it seems unlikely that one system will ever be able to handle all hyperintensional operators simultaneously and remain informative with respect to the ‘internal logic’ of hyperintensional contexts (p. 308).

The development of a single unified semantics restricted to *representational* hyperintensionality only (i.e., a unified semantics for at least all propositional attitudes) already appears just as ambitious as unlikely. Moving to the *prima facie* non-representational realm, even the most explicit attempt towards a hyperintensional *Fregean* semantics to date (Skipper & Bjerring, 2020) is not used for worldly hyperintensionality, as its proponents openly admit:

we are not claiming that our framework can be used to shed light on all hyperintensional phenomena that one might want to reason about. For instance, Nolan (2014) surveys a number of interesting and important issues in the area of hyperintensional metaphysics that lie beyond the scope of our framework. Moreover, we are not claiming that epistemic n-intensions can be used to shed light on all the semantic phenomena that one might want to reason about. [...] if we are interested in capturing an externalist notion of content – as championed by, for example, Kripke (1980) and Burge (1979a, 1979b) – epistemic n-content may not be of much use (p. 22).

Again, the main reason for such limitation seems to be rooted in the very nature of certain hyperintensional phenomena, which in turn depends on their source. This is a general worry that arises regardless of any specific conceptualist account one might adopt.

Indeed, a well-known risk for any strongly representational theory of semantic content is that of being *too fine-grained*. Consider the following sentences:

(5a) Marilyn Manson is an artist because Marilyn Manson is a singer.

(5b) Brian Hugh Warner is an artist because Marilyn Manson is a singer.

No propositional attitude is involved in (5a) and (5b). A natural reading of ‘because’ here is the one capturing a hyperintensional determination or grounding relation. Since ‘being an artist’ is a determinable property that can be determined (grounded) by the instantiation of ‘being a singer’, and Marilyn Manson is identical to Brian Hugh Warner, (5a) and (5b) are not only true, but also at least ground-theoretically equivalent. Whatever semantics for this kind of

construction turns out to be the correct one, it needs to capture at least this fact. Furthermore, it needs to be fine-grained enough to capture hyperintensional distinctions between sentences like ‘Socrates exists’ and ‘{Socrates} exists’ (recall the grounding example discussed in Section 2), but also coarse-grained enough to guarantee the substitutivity *salva veritate* between ‘Marilyn Manson is an artist’ and ‘Brian Hugh Warner is an artist’ in contexts like (5a)–(5b). This is an instance of the so-called *granularity problem*.

Now we should ask: do Fregean approaches always cut contents with the appropriate granularity? As long as they are committed to the view that contents are in some sense representational, they will arguably hold that ‘Marilyn Manson is an artist’ and ‘Brian Hugh Warner is an artist’ have different senses. After all, one might believe the former without believing the latter, and this amounts to a difference in their representational content. But this means that (5a) and (5b) must express different contents as well, on pain of violating compositionality.¹⁵ If that is the case, the answer to our granularity question is obviously no: Fregean approaches face the risk of being too fine-grained in many contexts. This raises further suspicion against the extensibility of the Fregean picture from intensional to (most or all) hyperintensional locutions, and answers to Byrne and Thompson’s question: ‘why should we expect these extensions to break down when the locutions are about non-representational phenomena?’.

Notice that I am not claiming that Fregean accounts can *never* be extended to deal with *any* hyperintensional phenomena. On the contrary, their application to several representational contexts is certainly a viable option. My only aim here is to highlight that Byrne and Thompson do not provide compelling reasons to accept that such approaches can in principle be extended to all or even most hyperintensional phenomena, while they seem to require this in order for their argument to go through. More precisely, Byrne and Thompson seem committed to the following conditional: if there is a general representational treatment of hyperintensionality, then hyperintensionality derives from representation. The points raised in Section 4.1 are enough to reject the conditional as a whole, but even if we granted its acceptability, here I have pointed out the lack of evidence for its antecedent. Our available evidence suggests instead the opposite, namely, that it is not the case that Fregean approaches can be extended for a general representational treatment of hyperintensional phenomena. Hope is the last to die, but so far the burden of proof is still on the conceptualists.

5 | CONCLUSION

The issue of the source of hyperintensionality in cases that do not involve propositional attitudes might not worry those who subscribe to a broadly externalist picture of semantic content, or those already sympathetic with Nolan’s view that hyperintensionality comes in a variety of flavours, both representational and worldly. The present work aimed at showing the failure of the rejection of such view (when based on mere semantic preferences), and at providing insight on the notion of worldly hyperintensionality through the comparison with the notion of worldly intensionality.

In order to reject the view that hyperintensionality can be non-representational—that is, having its source in the world rather than in our representations of it—Byrne and Thompson’s comparison with intensional locutions does not work. On the contrary, that very same comparison seems to support Nolan’s remarks about worldly hyperintensionality. The distinction between *de re* and *de dicto* intensional modality captures a distinction between different sources of intensionality: worldly and representational. This is nowadays a platitude, so it seems reasonable to expect a similar kind of distinction also at the hyperintensional level, instead of

¹⁵Strictly speaking, the violation would concern the analogous principle of *inverse* compositionality, which says that if we start with an expression *E* and replace part of *E* with an expression having a different meaning, we end up with an expression having a different meaning than *E*.

postulating a single kind of hyperintensionality. However, Byrne and Thompson's argument fails because it relies on the idea that the issue should be settled simply by choosing a semantic framework, paired with a representational interpretation of its ontological commitment.

Against that, I showed how (i) by replicating Byrne and Thompson's strategy it is possible to defend the opposite of their claim (in an equally unsatisfying way), namely that hyperintensionality does not derive from features of representations; (ii) the existence of a Fregean semantics for intensional locutions does not guarantee the possibility of extending it to cover all or even most cases of hyperintensionality, and our available evidence actually suggests that Fregean approaches might often turn out to be too fine-grained for that purpose.

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CONFLICT OF INTEREST STATEMENT

The author has no competing interests to declare that are relevant to the content of this article.

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