

# On Content Uniformity for Beliefs and Desires

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Daniel Skibra  
*Northwestern University*

**Abstract** The view that dominates the literature on intentional attitudes holds that beliefs and desires both have propositional content. A commitment to what I call “content uniformity” underlies this view. According to content uniformity, beliefs and desires are but different psychological modes having a uniform kind of content. Prima facie, the modes don’t place any constraint on the kinds of content the attitude can have. I challenge this consensus by pointing out an asymmetry between belief contents and desire contents which shows content uniformity to be mistaken. I do this by revisiting the arguments of Richard 1981, and show that arguments which purport to show the temporal specificity of belief contents yield the opposite results for desire contents. I defend this preliminary conclusion from various strategies to neutralize the asymmetry claim. My defense provides occasions to respond to objections by Brogaard (2012) and Recanati (2007) to the Richard argument, and to get clearer on the role of temporal adjuncts in desire ascriptions. Finally, I consider whether the construal of attitude content as centered propositions (as in Lewis 1979) can be invoked to vindicate content uniformity. My conclusion is that while the framework itself doesn’t vindicate content uniformity, it could, but only if it availed itself of a further, substantive thesis about desire, which itself is in need of defense.

**Keywords:** propositions, content, belief, desire, intentional attitudes, attitude ascriptions

## 1 Introduction

Let’s say you want to share a tasty meal at a restaurant with friend, and then you do. This being so, you form the belief that this state of affairs obtains. You wanted something and you also came to believe something. What is the nature of the things you desired and believed? Are they identical – is the content of what you desired and what you now believe the same, the difference lying only in the attitude you take to this content?

Philosophical orthodoxy takes this to be the case and advances the following picture. What you desired and what you believe was in each case a proposition; the same one, in fact. You just came to

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stand in a different relation to this content. On the picture just sketched, there's no systematic difference in the kind of informational content a belief and a desire might have. Of course, the belief and the desire differ in *direction of fit* (putting aside difficulties in saying what exactly direction of fit amounts to), but this difference has no purchase on the kind of content beliefs and desires have.

The appeal of this picture is easy to see; claiming that the content of intentional states are propositions puts intentional states into contact with a number of other cognitive, linguistic, and communicative systems without much complication. Recall that philosophers of language and mind call upon propositions to serve many roles. Typical candidates for the roles propositions characteristically play include the following.

- (P1) the objects of intentional states
- (P2) the primary bearers of alethic and modal properties
- (P3) the contents of illocutionary acts
- (P4) the denotation of dedicated linguistic expressions
- (P5) the compositional semantic values of sentences in contexts

These roles don't have to be accepted as a package; some philosophers will reject one while embracing the others. For example, [Lewis \(1980\)](#) and [Dummett \(1991\)](#) (and others following them) famously reject role (P5). But it's easy to see why accepting all of (P1) through (P5) remains a popular option. Doing so provides a simple, elegant picture of the interface between the theory of meaning, the theory of communication, and cognitive psychology, insofar as it takes the same type of object to be, say, the denotation of a sentence, the object of an illocutionary act, and the object of a belief.

But this elegance recapitulates the assumption we started with – namely, that intentional states are in fact *uniform* in the kind of content they relate to. That they are is something like the default view of the attitudes. A tradition in philosophy that thinks of beliefs and desires as species of propositional attitudes (“propositionalism”, Cf. the discussions of intentionality in e.g., [Bealer \(1982\)](#), [Perry \(1994\)](#), and [Stoljar \(1996\)](#)) corroborates this picture. We can put the presumption more precisely like this: given a particular belief content, *p*, desires can have this exact content as well; what distinguishes desires from beliefs is not detectable in the way they encode content. It's this presumption I'll be challenging in this essay, and I'll do so by articulating a way belief and desire differ systematically with respect to their content.

The presumption is on display in the following quotations. In a prominent survey article on desire, Schroeder (2006), writes:

What distinguishes desire from belief is not what I desire or what I believe, because what I desire *is the same as* what I believe in the case in question. What distinguishes these mental states is the fact that I take two different attitudes to the *same content*. (emphasis added)

Likewise, in a survey on propositional attitudes, Baker (1994) writes:

What links these attitudes [viz. belief, desire, *inter alia*] is the fact that they are identified by their *propositional* contents. (emphasis added)

The presumption apparently has a good pedigree in analytic philosophy. In drawing the distinction between the sense and force of a sentence, Frege (1956: p. 294) famously notes the following difference between an interrogative and an indicative sentence.

An interrogative sentence and an indicative one contain the same thought[/ *proposition*]; but the indicative contains something else as well, namely the assertion. [...] Two things must be distinguished in an indicative sentence: the content, which it has in common with the corresponding sentence-question, and the assertion. The former is the thought[/ *proposition*], or at least contains the thought.<sup>1</sup>

What Frege is taken to mean is that the sentence's mood does not contribute to the thought (what I've been calling a proposition). Searle 1983, 1994<sup>2</sup> leverages this distinction into one characterizing intentional states, analyzing these states as composed of a representational component and a modal component. The representational component is responsible for the content, and specifies the satisfaction conditions for the attitude. The modal component specifies the mode of the representational content. The schema for this picture is  $M(p)$ , where  $p$  is the content of the attitude and  $M$  is the psychological mode. The  $M(p)$ -schema is presented as holding generally, so for any proposition  $p$ , nothing in principle prevents any  $M$  from being the mode for that representational content. Otherwise put, the structure of the content is uniform across different modes. This commitment is what I'll be calling "content uniformity," and will be the main target of the arguments in this essay.

**Content uniformity:** The structure of the content is uniform across different modes. Furthermore, no mode (and correspondingly, no attitude) has a proprietary type of content.

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<sup>1</sup> Italic text added by author.

<sup>2</sup> Cf. also Haugeland 1985: p. 90

Most propositionalists do not make this commitment as explicit as Searle. Instead, they might endorse a propositionalist view of beliefs and suggest in passing that the same holds of desires. But the motivating idea is that beliefs and desires do not differ in terms of their content, but in terms of the relation the attitude holder stands to that content.<sup>3</sup>

If content uniformity turns out to be mistaken because there is no single content type that (P1) picks out, then aside from the fact that a popular picture of intentional states will prove to be wrong, it is also unlikely that one kind of content will provide the right kind of format for the interfaces alluded to above. In the present paper, I won't have much to say about this interface, except for some impressionistic remarks in the conclusion. What I will do instead is to make the case that content uniformity should be rejected.<sup>4</sup> The strategy for doing this will be to pick two of our most fundamental intentional states, belief and desire, and show how their informational content wind up being asymmetrical in a persistent and systematic way.

The agenda will be as follows. Section 2 presents an initial contrast based on Richard (1981)'s noted argument about the temporal specificity of belief content. Applying Richard's tests to *desire* ascriptions shows a sharp contrast to belief ascriptions. I argue that if we accept the lesson of Richard's contention about the temporal specificity of belief contents, parity of reasoning suggests that desire contents are themselves temporally neutral. Thus, we are faced with a prima facie asymmetry between belief and desire contents. Sections 3 and 4 will be concerned with how this contrast generalizes; I will defend the prima facie interpretation I offer by neutralizing attempts at undermining the asymmetry claim. Section 5 considers whether content uniformity can be restored by adopting the centered propositions framework of the property view of attitude content. I argue that this view gives us a different take on the asymmetry claim, but doesn't on its own vindicating content uniformity. Still, the property view allows for the possibility of restoring content uniformity, but it commits one to a robust thesis about the source

<sup>3</sup> By way of example, see discussions in Stalnaker 1981 and Loar 1981. Fodor (1978) doesn't think of intentional states as relations to propositions directly, but he's happy to endorse the claim that intentional states are mediately related to propositions (albeit via internal linguistic representations in the language of thought), and he does not give any indication (e.g., in Fodor 1975, 1978, 1985) that he'd object to content uniformity.

<sup>4</sup> It might be that doubts about this presumption are more common than my discussion suggests. But if so, there hasn't been much explicit discussion about what underlies these doubts, or about how content uniformity falters. So, an interrogation of this presumption is warranted, and I take myself to be articulating one such case against it. What discussion there is of content uniformity in the literature usually differs in focus. There is some debate about whether *force* is part of the (illocutionary) content of utterances (cf. Hanks 2007, for example), but this discussion usually doesn't concern attitude content explicitly. An exception would be Archer 2015, which articulates a case against content uniformity on the basis of *force* being encoded in the attitude content. It should become clear that my case against content uniformity differs from these, though they may ultimately be related.

of desire contents' temporal neutrality. I don't endorse this thesis myself, but leave open the possibility of its eventual defense. 6 concludes by reflecting on the consequences of rejecting content uniformity.

## 2 The Richard Argument and the Modified Richard Argument

The basis of my rejection of content uniformity will be an asymmetry claim turning on the temporal properties of belief and desire contents. Belief contents, qua propositions, are typically thought to have certain representational properties. In particular, the traditional story goes, the truth values of propositions are absolute; they *do not vary* with time, place, or person.<sup>5</sup> With respect their temporal properties specifically, propositions are thought to be temporally absolute; they have their truth values eternally. Frege's (1956) discussion is the locus classicus for this view.<sup>6</sup> The view that propositions are temporally specific in this way has come to be known as "eternalism" in the literature; its denial, "temporalism". The temporalism/ eternalism debate typically concerns the status of propositions, but hinges crucially on the whether temporally specific/ neutral propositions make for appropriate content vehicles for attitudes. Richard (1981) gives a famous argument ("the Richard Argument") in defense of eternalism. In a nutshell, his argument is this. If belief contents were temporally neutral, then we would get intuitively bizarre results with in some of our commonplace belief attribution practices. So, belief contents are not temporally neutral (and further, temporalist propositions make for inappropriate belief contents). He shows this through an inference, such as the one in (1), that is unassailable from a temporalist standpoint, but which we'd nonetheless be loathe to accept.<sup>7</sup>

- (1) a. Josef believed that Clinton was president.  
b. Josef still believes everything he once believed.  
Therefore:

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<sup>5</sup> This claim is part of what Perry (1979) has called the Traditional Doctrine of Propositions. Perry was also concerned with a form of content he thought challenged the traditional picture. But he was specifically interested in belief contents whose truth values varied with person, so-called *de se* attitudes. Note that there is a temporal variant of a *de se* thought (*de nunc* thought). This is evidently not the same problem as the one I will be discussing, but in section 5, I will consider the extent to which some of the resources used in the analysis of the *de se* help with the problem at hand.

<sup>6</sup> Frege (1956: p. 296) points out that expressing the same proposition at different times may require a change in the linguistic form in which it is expressed. So, "if someone wants to say the same today as he expressed yesterday using the word 'today', he must replace this word with 'yesterday'." Frege further contends that this is because "the time of the utterance is *part of* the expression of the thought." (emphasis added) Cf. also Moore 1927, Cartwright 1962.

<sup>7</sup> The intended reading of (1a) is the so-called "simultaneous" reading, where the action or state described by the embedded clause is simultaneous with the action or state described by the verb in the matrix sentence. In other words, where Clinton's being president is simultaneous with Josef's thinking. There is another, "back-shifted", reading where the embedded past tense is not vacuous (as it is in the simultaneous reading), but instead shifts the time of the Clinton's being president back with respect to Josef's thinking. The simultaneous reading is the more natural reading here. But besides this, we focus on the simultaneous reading because it showcases the different verdicts of eternalism and temporalism more clearly.

c. Josef believes that Clinton is president.

The judgment here is that inferring (1c) on the basis of (1a) and (1b) is a manifestly bad inference.<sup>8</sup> Yet, according to Richard, the temporalist is committed to the validity of the inference from (1a) and (1b) to (1c).

Aside from just noting that the inference sounds bad, we can see where it goes wrong. Following Richard, I'll adopt the convention of placing brackets around a sentence as a device to represent the content that sentences express at a time. If  $S$  is a sentence,  $[S]$  is the content expressed by  $S$  at  $t$ . Intuitively, if  $A$  is a non-indexical singular term and  $S$  is a sentence, then  $\ulcorner A$  believes that  $S \urcorner$  is true iff the denotatum of  $A$  believes  $[S]$ . Then, the temporalist truth conditions for a belief ascription like (1c), *Josef believes that Clinton is president* is as follows. Letting  $B$  be a 3-place predicate denoting the belief-relation a person stands in to a proposition (or other content-vehicle) at a time, it expresses a truth at  $t$  just in case:<sup>9</sup>

$$(2) \quad (\exists p)(p = [Pc] \ \& \ B_j p t)$$

Allowing the past tense to quantify over past times, the truth conditions for belief attributions in the past tense are as can be expected.

$$(3) \quad (\exists p)(\exists t')(t > t' \ \& \ p = [Pc] \ \& \ B_j p t')$$

Since (1b) states that Josef still believes all the propositions he held at some previous time, its truth conditions are regimented as follows.

$$(4) \quad (\forall p)((\exists t')(t > t' \ \& \ B_j p t') \rightarrow B_j p t)$$

But (3) and (4) jointly entail (2), and so the inference from (1a) and (1b) to (1c) is valid on a temporalist construal of propositions. What looks like a bad inference is logically unassailable from a temporalist perspective. By contrast, an eternalist is not committed to the validity of the argument in (1). An eternalist

<sup>8</sup> People confronted with the inference in (1) will sometimes respond that what makes it bad is that (1b) is wildly implausible; who believes *everything* they once believed? I'm sympathetic to this line of thinking, but it makes little difference to the problem Richard presents the temporalist with. The inference could just as easily be run with *Josef believed that Clinton is president. Josef still believes that. Therefore, Josef believes that Clinton is president.* creating much the same problem for the temporalist. It's worth noting that this way of setting up the inference contains no quantifiers, so it side-steps potential temporalist-friendly solutions that appeal to the context-sensitivity of natural language quantifiers like *everything*. In sections that follow, I will sometimes revert to describing the relevant inference schema as containing anaphoric *that* as opposed to the quantifier *everything* when doing so would make the point more perspicuous.

<sup>9</sup> The schematization in (2), and those like it, represent the relevant sentences in a way that serves to tease out features of the attitude content. It should be clear that this doesn't purport to give a semantics for a fragment of natural language which includes the world *believe*, the way this project is understood in, for example, Heim & Kratzer 1998 or von Stechow & Heim 2002.

thinks that propositions are specified for time, which we can represent via temporally indexing the [ ]-notation.<sup>10</sup> Once the eternalist indexes the content-denoting device in (2), it makes the invalidity of (1) perspicuous.

- (5) a.  $(\exists p)(\exists t')(t > t' \ \& \ p = [Pc]_{t'} \ \& \ Bjpt')$   
 b.  $(\forall p)((\exists t')(t > t' \ \& \ Bjpt') \rightarrow Bjpt)$   
 Therefore:  
 c.  $(\exists p)(p = [Pc]_t \ \& \ Bjpt)$

Insofar as this indexing is content-affecting (that is – it affects the content by supplying a time indication to it), the argument in (5) is invalid, since it entails not (5c), but (6).

- (6)  $(\exists p)(\exists t')(p = [Pc]_{t'} \ \& \ Bjpt)$

Indeed, the schematism in (5) makes good sense of why we find (1) unacceptable. Still, it's worth emphasizing that it's the fact that the temporal indexing of the [ ]-notation is content-affecting in (5) and in (6) that allows us to explain the invalidity of the inference. We could construe this kind of indexing as content-*indifferent*, as it would be if it simply provided a time of evaluation, in which case the inference in (5) would be valid, just as would be the inference from (3) and (4) to (2).<sup>11</sup>

Richard's contention comes to this. We judge the inference in (1) to be unacceptable, and appealing to absoluteness, as the eternalist does, provides a compelling explanation of why; the inference is manifestly invalid. The temporalist, on the other hand, needs to explain our judgments some other way, because (1) turns on valid a temporalist construal of propositional content. Richard's argument, in effect, has it that on a temporalist construal of propositions, these arguments featuring belief attributions run roughshod over the intuitive features of beliefs we countenance in our folk psychology. If we were to assent to the belief ascription in (1c) on the basis of the (1a) and (1b), this would be an insult to Josef; it would impugn his rationality. In other words, we seem to need propositions to be temporally specific in order for them to plausibly serve as the objects of our beliefs. Richard's argument supports the temporal specificity

<sup>10</sup> This way of presenting an eternalistically satisfactory way of schematizing the inference owes to Aronszajn (1996)'s discussion of Richard's argument.

<sup>11</sup> This is because temporalism would validate the following schema.

- i.  $(\forall x)((x = [Pc]_t) \leftrightarrow (x = [Pc]_{t'}))$

The content of  $[Pc]_t$  and  $[Pc]_{t'}$  is identical, but the truth of  $[Pc]_t$  and  $[Pc]_{t'}$  may come apart –  $[Pc]_t$  and  $[Pc]_{t'}$  may be true at different times. Of course, temporalism *does* countenance temporally specific contents as well as temporally neutral contents. We would just need a different way to denote the kind of temporal indication that temporally specific contents have on a temporalist framework.

of belief contents; perhaps decisively so.<sup>12</sup> The temporal specificity of belief contents seems to give a compelling explanation of the bad-ness of (1). Suffice it to say, at the very least it puts a heavy dialectical burden on the temporalist to explain the inferential data – why would the argument in (1) seem so bad even though it is, strictly speaking, valid?

The Richard Argument proposes a useful device for gaining partial insight into attitude content. I propose a modification of the original Richard Argument to test for desire contents. The Modified Richard Argument is essentially the same as the unmodified Richard Argument, only with desire ascriptions as opposed to belief ascriptions. We can run two structurally similar inferences in (7) in (8).<sup>13</sup>

- (7) a. Leni wanted Clinton to be president.  
 b. Leni still wants everything he used to want.  
 Therefore:  
 c. Leni wants Clinton to be president.
- (8) a. Bill Clinton wanted [PRO to be president].  
 b. Bill Clinton still wants everything he used to want.  
 Therefore:  
 c. Bill Clinton wants [PRO to be president].

Given content uniformity, we'd expect the complements of desire ascriptions to denote propositions, too. And given the conclusion of the Richard Argument, we'd expect the same verdicts for the inference schema in the Modified Richard Argument. Curiously, however, upon inspection of (7) and (8), the Modified Richard Argument yields very different results. (7) and (8) contrast strongly with (1). The inference from (7a) and (7b) to (7c) (or (8a) and (8b) to (8c)) doesn't offend reason at all. Not only do these inferences seem valid, but giving the desire ascription in (7c) on the basis of (7a) and (7b) isn't an insult to the ascriber's rationality (ditto with the inference in (8)), the way we were inclined to think in the case of the parallel inference featuring belief ascriptions in (1).

12 E.g., cf. the assessments of the argument in Glanzberg 2009, 2011; King 2003, 2007; Salmon 1986, 1989, 2003; Schaffer 2012; Soames 1999, 2011. Cf. also similar discussions of belief content in Evans 1985; Stalnaker 1984. Lewis also seems to endorse eternalism about attitude content in Lewis 1980, which he famously amends in Lewis 1979.

13 As pointed out by Larson (2002) (cf. also Larson et al. 1997, Larson 2011), a sentence like (i) is in fact fully clausal. The complement of *want* is a fully saturated predicate, but the subject of the embedded clause is the unpronounced pronominal element PRO.

- i. Bill Clinton wants to be president.  
 ii. Bill Clinton wants [PRO to be president].

(ii) is a subject-controlled expression, so PRO is obligatorily interpreted as co-referring with the subject of the main clause. I make PRO explicit in the sentences set out in the main text in order to be on guard against objections like the one in Ben-Yami 1997, which rejects the view that desire contents are propositional on the grounds that the complements of some attitude verbs (like *want* in (i)) aren't sentences. In fact, I have some sympathy with Ben Yami's argument, but not because the complement isn't fully clausal.



If the intuition of the manifest invalidity of (1) is at all probative, then the fact that (7) and (8) aren't bad causes problems, so long as we think of desire contents as propositions, and propositions as temporally specific. We appealed to the absoluteness of propositions to explain what was wrong with the inference in (1), and then glossed this in terms of manifest invalidity once the propositions were properly time indexed. But if the argument in (1) went wrong *due to* the contents' temporal specificity, then parity of reasoning suggests that (7)'s appearing valid suggests temporal neutrality on the part of the desire contents. If this is so, in contradistinction to the inference in (1), the inference in (7/8) can be regimented as follows.

- (9) a.  $(\exists p)(\exists t')(t \succ t' \ \& \ p = [Pc] \ \& \ Dlp t')$   
 b.  $(\forall p)((\exists t')(t \succ t' \ \& \ Dlp t') \rightarrow Dlp t)$   
 Therefore:  
 c.  $(\exists p)(p = [Pc] \ \& \ Dlp t)$

So, comparison of the Richard Argument with the Modified Richard Argument suggests an asymmetry between belief and desire contents. But let's not overstate the case so far. The asymmetry between (1) on the one hand, and (7) and (8) on the other, is suggestive. A difference in the temporal status of belief and desire contents is a plausible explanation of this contrast – at least, in this stage of the investigation. But this explanation will only hold water to the extent that the this evidence generalizes. In what follows, I will argue that it does – the asymmetry pointed out by a comparison of the Richard Argument and the Modified Richard Argument is in fact probative.

### 3 Generalizing the Asymmetry Claim I: Temporally Neutral Belief Contents?

The question facing us is whether the Richard Argument and its modified version are probative tests for the temporal status of their respective contents. As I said above, I will argue that it is – but this means determining that there isn't a version of the inference schema in (1) that demands we countenance temporally neutral belief contents, or versions of the inference schema in (7/8) that demands we countenance temporally specific desire contents. I will address each of these possibilities in turn.

Let's start with the possibility that there are instances of the Richard Argument that demands that we countenance temporally neutral belief contents. This is a timely possibility to consider for dialectical reasons. For several decades, many found the Richard Argument decisive.<sup>14</sup> In fact, the original motivation

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<sup>14</sup> Cf. the citations in fn. 12.

behind Richard 1981 was to challenge Kaplan (1977)'s temporally neutral notion of content. *Kaplanian* content is a quasi-linguistic notion which gives the denotation of a sentence at a context. It's *this* notion of content that, as we've seen, cannot make sense of the way content figures in our attitudes, as evidenced by our practice of attitude ascription. Kaplan's motivation for keeping content temporally neutral was the idea that there are temporal operators which operate on that content (as opposed to character, in this framework).<sup>15</sup> The Richard Argument has been found decisive enough that even some philosophers who find this motivation compelling argue for divorcing linguistic content from intentional (and illocutionary) content; the idea being that linguistic content may be temporally neutral, but it maps onto a temporally specific attitude content.<sup>16</sup>

More recently, however, this consensus was challenged from the attitude content side. Some philosophers have pushed back against the Richard Argument – specifically about the data it allegedly provides. The most prominent examples of this are Brogaard 2012 and Recanati 2007. Though they concede that (1) sounds bad, they argue that the inference schema has acceptable counterparts, and provide examples like the following to corroborate.<sup>17</sup>

- (10) a. In 1995, Josef believed that democracy was the best form of government.  
 b. Joseph still believes that/ everything he once believed.  
 Therefore:  
 c. Josef believes that democracy is the best form of government.
- (11) a. When he was young, Josef believed that hitchhiking was dangerous  
 b. Joseph still believes that/ everything he once believed.  
 Therefore:  
 c. Josef believes that hitchhiking is dangerous.

In contrast to (1), the inferences in (10) and (11) sound fine. At first blush, this data point weakens the contrast pointed out by the Modified Richard Argument, because whatever accounts for the difference between between (1) and (10/11), might also explain the contrast between (1) and (7/8). On the assumption that the presence or absence of a time indication explains the latter contrast, might it not just

<sup>15</sup> This goes by the name of the Operator Argument; cf. Kaplan 1977: pp. 503-4, fn. 28. Though cf. Cappelen & Hawthorne 2009; King 2003, 2007 for a case against the Operator Argument.

<sup>16</sup> Cf. Lewis 1980 for this proposal. Adopting this proposal would effectively divorce P5 from P1 in the taxonomic roles of propositions given in the introduction. This proposal still commands considerable influence in philosophy of language with the distinction between the compositional semantic value of a sentence in context, and its assertoric, or informational, content, cf. Ninan 2010, Rabern 2012, Yalcin 2014. Note that even Rabern (2012: §3.2) argues that keeping the notion of compositional semantic values temporally neutral will still allow one to accommodate Richard's contention about attitude content in a principled way.

<sup>17</sup> A reviewer provided the example in (10). An example similar to (11) is considered in Richard 2015: Ch. 4.

as well explain the former? And if this is so, then there is no robust asymmetry between belief content and desire content. As a consequence, the Modified Richard Argument would pose no threat to content uniformity.

Against this, I will argue that the acceptability of (10/11), and inferences like it, is misleading because it doesn't actually owe to the temporal neutrality of the underlying belief content. Instead, I will argue that the inference schemata are still quite like those in (1) – temporally specific, and therefore invalid – but the acceptability of (10/11) is to be explained by a combination of linguistic facts and pragmatic reasoning of a familiar kind, as opposed to the properties of the underlying belief content.

Before giving the explanation, it will be necessary to introduce a few concepts pertaining to lexical and grammatical aspect. Grammatical aspect (or viewpoint aspect, as it is sometimes called) is a grammatical property of sentences and has to do with the presentation of the events and states described by them. (By contrast, and simplifying matters a great deal, we might say that tense simply provides the temporal location of the respective events, as before or after the time of utterance.) Grammatical aspect turns on the perfective/ imperfective distinction – a spatial metaphor is often invoked to describe each of these.<sup>18</sup> Imperfective aspect describes events or states *from the inside*, as it were, and perfective aspect describes them from the *outside*. In particular, imperfective aspect is said to describe events as on-going at a particular point in time; perfective as complete wholes.

Lexical aspect (also “*Aktionsart*” in some branches of linguistics) refers to the temporal properties of predicates themselves – typically verbs and complex expressions built up out of verbal predicates. Whereas grammatical aspect has to do with the presentation of the event described, lexical aspect has to do with the information about the structure of the event that is lexically encoded by predicate.<sup>19</sup> One of the principle kinds of information predicates tend to encode pertains to whether or not the eventuality involves a *natural cumulation* or *stopping point*, and whether or not it can be analyzed as progressing or developing over the course of its duration. To give some examples, predicates like *go to the store*, *draw a circle*, etc. develop over the course of their duration, and involve a natural end point (i.e., the store is reached, the circle is completed, etc). At the other extreme, stative predicates like *love broccoli* and *is red* are homogenous; they don't develop or progress (they *hold* as opposed to *happen*, as it is sometimes put e.g., by Parsons (1990)), and they don't have a natural cumulation. Of course, most states don't last

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<sup>18</sup> Cf. the discussion in Comrie 1976, for example.

<sup>19</sup> Vendler 1957 is the classic discussion of this, though cf. Kenny 1963 and Ryle 1949 for similar kinds of observations. Bach 1986; Dowty 1979; Mourelatos 1978; Smith 1991 also provide relevant discussion.

indefinitely, but the predicates describing them don't *lexically* contain any information about when they will no longer hold, unlike events described by *go to the store*, which will be completed when the store is reached.

Here's where some of the facts about lexical and grammatical aspect become significant. The concluding sentence in the Richard style inference always contains an embedded stative predicate. In fact, these ascriptions tend to embed a fully inflected present tense clause. And present tense sentences are uniformly imperfective. This is a robustly cross-linguistic generalization, and there are various analyses proposed for why this is, but we needn't address them here.<sup>20</sup> So, the stativity of the embedded predicate will come as no surprise; imperfective sentences in the present tense must be stative.<sup>21</sup> This means, according to the facts canvassed above, they describe a kind of state or event which is ongoing with respect to the time of the belief. However, the embedded predicate itself doesn't *lexically* contain any information about the duration of the state.

However, the duration of the states described by stative predicates is not the stuff of great mystery. Language users have a pretty good idea of how long such states will stereotypically last. Knowing this would be a matter of having knowledge *about the world* as opposed to having some kind linguistic knowledge in virtue of mastery of the language. This is sometimes referred to as "encyclopedic knowledge" in pragmatics. All of this allows us both to note and explain an important observation about about (10/11) and any of the Richard-style inferences containing belief ascriptions that wind up seeming acceptable. The observation is that there's a particular recipe for generating these kinds of inferences. You take a predicate, like *is dangerous*, *is the best form of government*, *is president*, etc., and then make the past tense version of the belief attribution hold at an earlier point in time, but at a point whose distance from the present is *less* than the typical duration of the state described by the predicate. This means that,

<sup>20</sup> For this, cf. Cowper 1998 or Ogihara 2007.

<sup>21</sup> There is a little bit of apparent cross-linguistic variability here, but it is superficial. In English, for a non-stative predicate to appear in the present tense, if it is to have an episodic reading, it must be in the progressive, which most authors say converts the predicate into a kind of state description. This is why *John is going to the store* is acceptable, but *John goes to the store* is not, unless the latter has a habitual (and so not episodic) meaning. Certain languages allow for event verbs (especially non-telic ones) to occur in the present tense. In German, for example, *Er rennt*. (lit. "He runs.") is acceptable, but the predicate has an ongoing (and so, imperfective) meaning, akin to the progressive *He is running* in English. The point is that other languages allow "on-going", imperfective readings of lexically non-stative verbs without progressive morphology, whereas English doesn't. But this is evidence that these languages can coerce these lexically non-stative verbs into a state-reading without an overt progressive. Also: the fact that the embedded clause is inflected for present tense is also not essential. Belief attributions can embed non-finite clauses in what are called ECM (Exceptional Case Marking) constructions. But as a rule, in belief ascriptions these embedded clauses are interpreted as occurring at the time of the matrix verb. In other words, they have an interpretation *as though* they were inflected for present tense. (Think: *Leni believes him to be president*.) And finite or not, the embedded clause in a belief ascription is always stative. The stativity is essential, and will secure the on-going reading. The present tense morphology is inessential.

assuming stereotypical conditions hold, *if* the state held at that past point in time, it will more than likely continue to hold past the present moment.

From a semantic standpoint, the belief ascription merely encodes the belief that at present, there is an ongoing (because imperfective) state of *democracy's being the best form of government* or what-have-you. While the ascription doesn't semantically encode any information as to the duration of the state (because stative), speakers do tend to know roughly how long the duration of such states last (because of their encyclopedic knowledge). *Being president* tends to last four or eight years in the United States. *Being dangerous* or *being the best form a government* tends to last a considerably longer amount of time – such states will continue to hold unless the circumstances change considerably. Since stative predicates don't themselves contain information of their duration as a matter of their lexical semantics, this kind of knowledge is a non-semantic affair, and not part of the semantic content of the respective sentences, whose truth conditions can simply be that the state in question holds at the point in time indicated by the tense. Therefore, the inferences in (10) and (11) are, strictly speaking, invalid. But unless there is evidence of i) a particular deficiency or idiosyncrasy in the person's belief, or ii) an acknowledged or understood interruption of the state that makes it depart from its typical duration, then a person who would be appropriately described by the (a) sentences in the various versions of the inference in the Richard Argument, would also be correctly described by the (c) sentences in the circumstances supposed by this recipe. But this is a pragmatic inference, invoking encyclopedic knowledge about the states referred to in the discourse.

Use of this kind of encyclopedic knowledge is well-documented in the study of the pragmatics of discourse, particularly if we think of it as a species of what Clark (1975) calls a “bridging inference”. Bridging inferences typically involve common assumptions about the relations between, and properties of, various discourse entities. So, in a discourse that contains the sequence *I walked in the kitchen. The stove was on*, it's typically inferred that the stove being referred to in the second sentence is in the kitchen referred to in the first. This fairly robust default inference is arrived at in virtue of one's encyclopedic knowledge of stereotypical kitchens. Events can figure into bridging inferences as well. In the discourse *I went shopping yesterday. The walk did me good*, it's inferred that the walk referred to in the second sentence is part of the event of *going shopping* described in the first.

My suggestion comes to this. The acceptability of the inferences in (10) and (11) owes not to the temporal neutrality of the underlying belief content, but to the kinds of bridging inferences speakers

default to making when reading the sequence of sentences as a discourse. Is there any reason to *prefer* my story to the one defended by Recanati and Brogaard, about the temporal neutrality of belief content? There are. First, my explanation falls naturally out of a few entirely uncontroversial facts about lexical aspect, and the interaction of tense and grammatical aspect. These facts are not in dispute, so presumably even the temporalist invoking (10/11) would accept them. Second, my story provides a better explanation for the particular pattern exhibited by the acceptable versions of the inference. Given the “recipe” for generating these examples, my explanation accounts for why precisely those inferences containing the temporal-aspectual profile seem to be acceptable. And third, the empirical evidence favors this explanation. Consider (12) and (13).

- (12) a. Back on the 4th of July 2019, Josef believed that Trump was president.  
 b. He still believes that.  
 c. So, Josef believes that Trump is president.
- (13) a. Back on the 4th of July 2019, Josef believed that Trump was president.  
 b. He still believes that, though he thinks a presidential term ends with the calendar year.  
 c. So, Josef believes that Trump is president.

If my “bridging” explanation is correct, there should be subtle but perceptible differences between (1), (12), and (13). In particular, (12) should sound pretty OK (at least, better than (1), for those hearers that interpret the three sentences as they would a discourse). This is because our common stock of encyclopedic knowledge about *being president* has it that a presidential term would continue from July 2019 through the time of this writing (January 2020).<sup>22</sup> But (13) should sound less acceptable. The difference between (12) and (13) is that in (13b), it was pointed out that Josef has an idiosyncratic and erroneous belief about the duration of presidential terms, so we can’t rely on his sharing our world knowledge about the duration of the state described by the embedded predicate. We don’t make the bridging inference, and as a result, the acceptability of (13c) will start to degrade, relative to (12c). This is exactly as would be predicted if the explanation I gave is true.

#### 4 Generalizing the Asymmetry Claim II: Temporally Specific Desire Contents?

A challenge to the asymmetry claim can come from the other side as well – arguing not that belief contents can be temporally neutral, but that desire contents can be temporally specific. Such an objection

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<sup>22</sup> Impeachment aside, that is.

would have to contend with the evidence provided by the Modified Richard Argument (i.e., the inference patterns exhibited by (7) and (8)), but could attempt to make the case that desire contents can be temporally specific. This objection would parallel the one discussed in the last section which attempts to undermine the asymmetry claim by marshalling evidence of temporally neutral belief contents. In this section, I consider, but ultimately reject, two strategies for arguing for the temporal specificity of desire contents.

#### 4.1 Hidden Future Operators?

The first strategy: It's a fairly natural intuition about our desires that they concern states of affairs that we would like to have obtain or events we'd like to have happen *in the future*. Seizing upon this intuition, the proponent of content uniformity could claim that desire contents *do* have a time indication – they are specified for the future. Content uniformity would then be vindicated because we could have a belief and a desire which shared a content. A desire for Bill Clinton to be president would share content with a belief that Clinton will be president. Moreover, both would respect absoluteness; they'd be propositions in the traditional, eternalist sense.<sup>23</sup>

It's worth asking whether this move would give the proponent of content uniformity a means of explaining what is going on in the Modified Richard Argument in a way that is congenial to the temporal specificity of desire contents.<sup>24</sup> Assuming the same kind of regimentation as in the previous section, but where the future-orientation is represented by existentially quantifying over future times, we get the following regimentation of the inference from (7).

$$(14) \quad \text{a. } (\exists p)(\exists t')(t > t' \ \& \ p = (\exists t'')(t'' > t' \ \& \ [Pc]_{t''} \ \& \ Dlp_{t'}))^{25}$$

23 Not all proponents of content uniformity claim that desire contents are temporally specific for a future time, though some do. It's not Searle's position, for example. But in his endorsement of content uniformity that I quoted above, it seems to be what Schroeder (2006) has in mind.

24 For example, Fara (2003) considers the possibility of a future operator in desire ascriptions. Such an operator could serve the purpose suggested above. (Her motivations for considering the suggestion are a bit different than mine. In her 2003, she is interested in notional/ relational variants among the purported readings of desire ascriptions containing definite descriptions. The intervention of a future operator would yield readings she suspects one could diagnose in such desire ascriptions.) However, she is cautious to accept the presence of a future operator too hastily and ultimately rejects the suggestion. After all, she argues, the source of the future tense operator would be mysterious, insofar as *want* is inflected for present tense and the clause embedded under *want* is infinitival. She rejects the suggestion on these grounds alone. That might be a little hasty, since the future-directed operator in question could, after all, be an unarticulated constituent of the complement clause inserted via free enrichment, allowing a future time to be specified without there being any linguistic expression in the complement that sanctions it. Cf. Perry 1986 and Recanati 2002, 2004 on unarticulated constituents; Cf. Bach 1994; Carston 1988; and Hall 2008 on free enrichment.

25 I'm not sure that this is the right schematization, but it'll suffice for present purposes. Still, it's worth flagging a worry here. If '[' ]' is a kind of operator, then there are non-trivial scope interactions with the future operator under consideration here. A

- b.  $(\forall p)((\exists t')(t \succ t' \ \& \ Dlp t') \rightarrow Dlp t)$   
 Therefore:  
 c.  $(\exists p)(p = (\exists t')(t' \succ t \ \& \ [Pc]_{t'}) \ \& \ Dlp t)$

It poses a challenge for the proponent of content uniformity to schematize the inference in (7) in such a way that makes it temporally specific, but valid. (14) is still not valid – at least, not without some further assumptions. But the bar for the proponent of content uniformity is actually considerably lower than validity. All she needs to do to explain the contrast between (1) and (7) is to give an explanation of why we are apt to *accept* the inference in spite of its invalidity. As we saw in the last section, there may be compelling pragmatic reasons for this. For example, the following Gricean reasoning provides a fairly compelling explanation of why, on the eternalist construal of the inference above, we are apt to accept the conclusion even if it is invalid: If Leni had a desire in the past at some  $t'$  that Clinton be president at some later time  $t''$ , then there are some candidate times at which this desire could have been realized that have passed by now. But if she maintains that same desire at  $t$  (namely, the desire that Clinton be president at some time  $t''$  after  $t'$ ), that would presumably be because this desire hasn't yet been satisfied. So it's a reasonable assumption that she has the desire *now* that Clinton be president at some *future* time relative to now.

Another consideration: given the Richard-style construal of what it is to maintain a desire, the content of the desire Leni has now, if it is *identical* to her previous desire, is that Clinton be president at some time extending into the future from some now past time  $t'$ . But since all the times in the interval spanning  $t'$  to the present time  $t$  are now past, we can ignore them, since her desire only stands a chance at being satisfied in the interval  $[t, \infty)$ , which, of course, is a subset of the interval  $[t', \infty)$ . So, while (14) is in no way valid, accepting (14c) on the basis of (14a) and (14b) seems sensible, given the reasoning just described.

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natural suggestion is for the temporal quantifier to take narrow scope with respect to  $[ ]$ , something like what we'd expect if we could make use of a Prior-style F operator, rendering (7a) as (i) below, instead of (14a).

- i.  $(\exists p)(\exists t')(t \succ t' \ \& \ p = [F(Pc)]_{t'} \ \& \ Dlp t')$

However, (i) introduces a novel operator into our schematization here. Since the previous schematization employs first-order quantification over times, we'd need to reconstrue (i) into our preferred ideology – something along the lines of (ii).

- ii.  $(\exists p)(\exists t')(t \succ t' \ \& \ p = ([(\exists t'')(t'' \succ t' \ \& \ [Pc]_{t''})]_{t'}) \ \& \ Dlp t')$

However, this supposes that we can iterate the  $[ ]$ -operator, and so probably pushes it beyond what Richard and Aronszajn had in mind as a logical device. (Indeed, part of its usefulness in denoting propositions hinges on its being able to take widest scope with respect to any material to the right of the identity relation in the ' $p = \dots$ ' conjunct.) (ii) seems right, but we've essentially adverted to Kaplan's notion of content with this move. That may be innocent enough, but the device was supposed to help probe Kaplan's notion of content and not presuppose it. In any event, the different scopal readings which troubled me here are largely immaterial to the larger point being pressed in this section. I thank a reviewer for very helpful discussion here and for catching an error I initially made in the presentation of this point.



Sensible though this proposal seems, the maneuver just won't work. The approach of appealing to a future operator as a means of giving an eternalistically acceptable explanation of the Modified Richard Argument gets things wrong about the very nature of desires' satisfaction conditions. Remarks from [Stampe \(1986\)](#) make clear why there is no such time specification in desire contents. Proponents of content uniformity get a purchase on the semantic evaluability of desires by supposing their contents to be satisfaction conditions. In this, they argue, desires are no different than beliefs. But the conditions under which a belief is satisfied are the conditions under which it is true. Desires, by contrast, are fulfilled or frustrated, not themselves true or false. But this doesn't amount to too deep a difference between beliefs and desires because fulfillment is just the particular kind of way desires can be satisfied, which ultimately has to do with the obtaining of the circumstances described by their contents.<sup>26</sup> But considering the satisfaction conditions of desire in this way means that if S wants  $\phi$ , then S's desire being satisfied is a matter of  $\phi$  obtaining, not of it being the case that  $\phi$  will hold at some future time. This distinction is not respected if we take desire contents to be temporally specific, encoding a time via a future operator.

To get clear on what is at stake in this insight, let's illustrate the point my means of a rather pedestrian desire before heading back to Leni. Suppose Franz wants to eat a piece of cake. If Franz buys a piece of cake, carries the box holding the piece of cake on his person and commits to eating it on his upcoming lunch, he could make it true that he will eat a piece of cake. In fact, we may suppose, it's true before his lunch time that Franz *will* eat the cake. But it being true that he will eat a piece of cake wouldn't satisfy his desire to eat the piece of cake. Rather, his *eating* the piece of cake would satisfy it. Let's return to Leni's desire, as indicated by the desire ascription repeated below.

(15) Leni wants Bill Clinton to be president.

Supposing her desire to be temporally specific would mean that Leni desires that Clinton be president at some time later than now.<sup>27</sup> Assume that the relevant federal laws change allowing a third term for the U.S. presidency and that Bill Clinton will in fact run for a third term in office in an upcoming election. Suppose further that he will win this election; so *it's true that* he will win the election. If the content of his desire were temporally specific about some time in the future, as we are supposing, then the content

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<sup>26</sup> On this picture, truth conditions are simply a species of satisfaction conditions. At least, this describes Searle's position. But Searle is more explicit than most about what undergirds his commitment to content uniformity.

<sup>27</sup> Or, that he be president at some time within a relevant future interval or at some particular future time, or what have you. It makes no difference to the present point.

of the desire would be *Bill Clinton is president at  $t'$*  for some  $t'$  suitably later than  $t$  (where  $t$  denotes the present moment). But in the envisaged scenario, it is *true* at  $t$  that Bill Clinton is president at this future time  $t'$ . So the temporally specific satisfaction condition is in fact *met* at  $t$ : Leni wants Clinton to be president at  $t' > t$ , and in fact this state of affair obtains.<sup>28</sup>

If satisfaction conditions work as this supposes, then Leni's desire for Clinton to be president ought to be satisfied. But of course we don't think that her desire is thereby satisfied. No, Leni's desire would be satisfied by Clinton's being president *full stop*. That is, her desire *will* be satisfied *when* it becomes the case that Bill Clinton is president, not by it being true that Bill Clinton will be president. In a nutshell, if the desire contents were temporally specific, then assuming a future Bill Clinton presidency, the temporally specific satisfaction conditions would already be met.<sup>29</sup>

Stampe says that *present tense truth of the content is what satisfies the desire*.<sup>30</sup> This way of putting it risks obscuring the point. To say that the present tense truth of the desire content *would* satisfy the desire is to say that *if* the state of affairs described by the content were to hold *now*, in the present moment, then the desire would be satisfied. This means that rather than encoding the time specification in the content (which makes the bizarre predictions canvassed above), desire contents are simply semantically evaluated *with respect to* a time. That is to say, a desire is satisfied if, at a given time, the state or event described by its content obtains. But – and Stampe himself does not draw out this consequence of his insight – this just adverts to a temporally neutral conception of content.<sup>31</sup> Semantically evaluating the content requires the provision of a time, though the time itself is not part of the content. Stampe's insight is that desire contents' particular role as satisfaction conditions presuppose temporally neutral content. The insistence that there is a future time indication in the desire content is actually a non-starter, given

28 Matters could be complicated considerably by one's conception of the future, especially if one subscribes to a version of the open future. To the extent possible, I'd like to sidestep these complications. Moreover, the fact that it's hard to know the outcome of an election may also confound the present point. If you think either of these issues makes a difference, run the example with Franz and his cake, where intuitions about what will happen are less unruly.

29 A reviewer makes points out that if desire contents are identical to satisfaction conditions, we'd have an even simpler argument for the temporal neutrality of desires: whether a particular desire is satisfied can change over time. The content must be temporally neutral if this is the case. I grant the reviewer's point. The intuition that a desire's being satisfied can change over time is a very natural one. Ultimately, it's the intuition that underwrites the lesson of the examples I used above to illustrate Stampe's point. That is, the most natural explanation of Franz's cake eating is that his desire went from unsatisfied to satisfied when he ate the cake.

30 Lycan (2012, 2020) argues for and elaborates a similar point.

31 Stampe actually seems to endorse content uniformity for beliefs and desires. (In particular, cf. Stampe (1986: pp. 160-170, fn. 3).) His comments suggest that he thinks that we should not construe the differences in the linguistic expression of desire and belief ascriptions as indicative of a difference in content. This advice may be sound, but his arguments about the temporal neutrality of desire contents indicate an asymmetry with belief contents that doesn't hinge on particularities of the expression of desire ascriptions.

the role of desire conditions.<sup>32</sup> The strategy of defending content uniformity by “eternalizing” the desire content is ruled out on conceptual grounds having to do with its role as a satisfaction condition. As a consequence, the interpretation of the inference in (7/8) I floated in the Modified Richard Argument seems to be the correct one. So, Stampe’s insight corroborates the asymmetry claim that underwrites my argument against content uniformity.

## 4.2 Temporal Adjuncts

The first strategy leverages intuitions about the putative future orientation of desires in service of broad claim that desires are temporally specific in virtue of this future orientation. A second strategy is more limited. It is not committed to the thesis that *all* desire contents are temporally specific. It argues merely that *some* desire contents are temporally specific, and justifies this claim by picking out a class of desires that are plausibly temporally specific. The most plausible way to pick out this class is perhaps by appealing to desire ascriptions that seem like they *explicitly* specify the time indication as part of the content by means of a temporal adjunct, as in (16) or (17).<sup>33</sup>

(16) Leni wants the money *by tomorrow*.

(17) Leni wants to go swimming *in two weeks*.

We’ll analyze this proposal in more detail in due course, but here’s a *prima facie* consideration in favor of it. Suppose (17) is true and Leni wants the same thing one week later. If the content of her initial desire were the temporally neutral *Leni go swimming in two weeks* (represented perhaps, as  $\lambda t$ . *Leni go swimming two weeks from t*), then her desire a week later would be that she go swimming in two weeks (i.e., two weeks from *then*). But it clearly would be strange to attribute such a desire to her. Doesn’t she then want to go swimming *next week*? And doesn’t the need to replace the temporal adjunct with another one (recalling Frege’s instructions on samesaying quoted in fn 6) in order to identify the desire’s content show that the content of the desire is temporally specific? Assuming the the answer to these questions is “yes”, the case for asymmetry grows weaker, and content uniformity looks more plausible.

<sup>32</sup> If desire contents are temporally neutral, what happens to the intuition that desire contents are actually future-oriented? This is fairly easy to accommodate, by supposing that contents will only be evaluated with respect to future times as a matter of necessity. This constraint may be justified by the assumption that it won’t turn out that our desires are retroactively satisfied, so the provision of past times are ruled out. Still, such times are not *part of* the informational content of the desire. This idea will prove instrumental for the response to the second strategy for defending the temporal specificity of desire content. In fact, on the Hintikka (1962)-inspired modal semantics which dominates the formal semantic treatments of attitude reports, you can get this effect trivially, simply by giving *want* a circumstantial modal base.

<sup>33</sup> Thanks to the reviewer for providing these examples and pressing me to discuss them in detail.

Notice, also, the apparent impasse we arrive at when trying to reconcile Stampe's insight with this view of temporal adjuncts in desire ascriptions as specifying a temporal indication in the content. As I've described it, Stampe's insight is a general claim about desire contents, which trades on a conceptual point about the nature of satisfaction conditions, and is borne out by consideration of cases like that involving Franz and his desire to eat the piece of cake. But what about the likes of (16/17)? At least if we consider these cases, it can seem like the temporal adjunct identifies a specific time which is encoded in the desire's content. Does this suggest we jettison Stampe's insight? If not, how do we square this with Stampe's insight, which would have it that Leni's desire content is temporally neutral, despite this appearance to the contrary?

We square it like this. Examples like (16) and (17) pose a problem for Stampe's insight insofar as it seems to us that the temporal adjunct specifies a time as part of the desire's content. But here's another possibility – the time indicated by the adjunct isn't actually part of the desire's content. It serves a different role in relating the content of the attitude to a time. Instead of contributing to the content, what the temporal adjunct does is circumscribe candidate times at which that content might be satisfied. Recall that according to Stampe's insight, the way satisfaction conditions work was as follows:

(18) A's desire that  $\phi$  would be satisfied at  $t$ , were it the case that  $\phi$  obtained at  $t$ .

Note that the indicated  $t$  is not part of the desire content, for this would result in the bizarre predictions Stampe and Lycan criticized, where the mere obtaining of an event at a future  $t$  would meet the conditions to satisfy a current desire. My suggestion is that temporal adjuncts in desire contents modify the  $t$  in this satisfaction clause, but do so without specifying a time as part of the attitude content. So, for example, (17) describes a present desire that is satisfied at  $t$  were it the case that *Leni's going swimming* obtains at  $t$ , where  $t$  is included in the interval described by *in two weeks*.

(19) a. Leni wants to go swimming in two weeks.

b. Leni's desire that she go swimming would be satisfied *in two weeks*, were it the case that Leni's going swimming obtained *then*.

In a moment, I will discuss why on earth – aside from a commitment to Stampe's insight – we should think temporal adjuncts in desire ascriptions function like this. First, let's return to the Richard-style schematization to elaborate on this proposal with more precision. However, we have to proceed with caution. The past few sections treated the subscript notation as contributing to the content denoted by

the formula enclosed in the [ ]-brackets, which would be inappropriate here. So, we need to amend the notation slightly in order to do justice to the proposal. In the belief case, the subscript notation on the [ ]-device indicated the temporal specificity of the content by indexing the content with a time. The proposition can be thus indexed in virtue of an explicit temporal modifier (like *now*), or simply in virtue of a combination of factors – say, present tense morphology on the verb and the time of the tokening of the utterance.<sup>34</sup> Again, (20) shows how the subscript notation was employed in a simple belief ascription, like the one considered earlier.

(20) a. Leni believes that Bill Clinton is president (*now*).

b.  $(\exists p)(p = [Pc]_t \ \& \ Blpt)$

By contrast, let's consider a superscript notation for the [ ]-brackets, which is more appropriate for the role of temporal adjuncts in desire ascriptions being floated here. In the present proposal, a content indexed with this superscript does not include the time as part of the content, but instead relates the content to a time in the manner suggested by (19). And because the superscript does not contribute to the content, we'll expect that contents can be identical even when superscripted with a different time. Accordingly, desire ascriptions with different temporal adjuncts can still relate agents to the same content.

So far so good. But why would temporal adjuncts work like this in desire ascriptions? There are good reasons to think that pointing out candidate intervals would be useful for communicative purposes. Desires may have something like an expiration date to them, and it would be worthwhile to point this out, in particular if our discourse aims to coordinate in any way on an action that may satisfy the desire. In fact, there are two such kinds of circumstances that illustrate well why our desire ascription practices might want to focus on a particular interval at which the desire may be satisfied. For reasons that will shortly become obvious, I'll call one an "internal" circumstance and the other an "external" one. First, the internal one. It is sometimes said that some desires can only be satisfied if the person still has it when the content they initially desired finally obtains.<sup>35</sup> If Franz wants to eat a piece of cake, but then his hunger

34 A word of caution: as I said in fn 21, present tense morphology on a verb embedded under an attitude verb in a belief ascription is neither a necessary nor sufficient condition for being indexed by the subscript notation. It is not necessary because belief ascriptions can have non-finite complements (like *Leni believed Bill Clinton to be president*) with the same temporal interpretation as their counterparts with finite complements like (19a). And it's not sufficient because, in some languages, the complements of desire ascriptions are finite, but still behave in a way that suggests they are temporally neutral.

35 Cf. what is sometimes called the "death of desire principle", for example as described by [Gordon 1986](#). It's been argued (by [McDaniel & Bradley 2008](#), e.g.) that this feature of desire warrants a rejection of content uniformity, but [Shaw 2020](#) denies this. (Shaw also acknowledges that the temporal neutrality of desires may pose a problem for content uniformity, but doesn't

dissipates by the time he gets his hands on a chocolate cake (perhaps because he eats something else), his eating a piece of cake at that point won't satisfy the desire. So it would be useful to point out a likely interval at which Franz's desire stands a good chance of being satisfied, and say *Franz wants to eat a piece of cake this afternoon*. As for the external one – the world might itself pose constraints on when the desire stands a chance of being satisfied. Suppose now that Elsa wants Bernie Sanders to be president. The next US election will be held in November of 2020. Let us further suppose that he simply won't run in the 2024 U.S. election cycle on account of his age. So, for a Bernie presidency, it's either now or never. A perfectly reasonable way of describing Elsa's desire, given the circumstances just described, would be to say that *Elsa wants Sanders to be president next term*, where *next term* describes a constraint on the interval at which Leni's desire could be satisfied, simply because of the constraints the world places on the eventual satisfaction of her desire. Interestingly, such a desire ascription would be appropriate even if Elsa's desire is such that she would continue to want a Sanders presidency well into 2021, even though at this point, this desire won't be satisfied.<sup>36</sup>

Having given these reasons for why temporal adjuncts would function in the manner I'm suggesting, let's turn to the familiar inference schema from the Modified Richard Argument, to see the predictions my proposal would make. This time, we'll supplement the desire ascriptions with temporal adjuncts. This will allow us to see whether temporal adjuncts can undermine the asymmetry claim, or whether my proposal about the role of temporal adjuncts provides a better explanation of the evidence. Consider (21).

- (21) a. Two weeks ago, Leni wanted to go swimming the following week.  
 b. (She didn't get to go, so) she still wants that.  
 Therefore:  
 c. Leni wants to go swimming (#next week).

For clarity's sake, let's provide a timeline against which this discourse is interpreted. Say the utterances occurred on January 28, 2020. So, the denotation of *two weeks ago* is a time  $t'$  on January 14, the

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pursue the issue.) I take no stand on the whether the death of desire principle requires rethinking desire content, or even if this is a general feature of desire. I am suggesting simply that it seems like a plausible feature of *some* desires, and we may navigate this feature of those desires in our desire ascriptions in part through the use of temporal adjuncts.

<sup>36</sup> There's a benefit to saying that *Elsa wants Sanders to be president* doesn't have a different content than *Elsa wants Sanders to be president next term*. If the temporal adjunct provided a time indication to the content, then assuming that Elsa wants Sanders to be president next term, it would be incorrect to describe her as having a desire which could be described by saying that *Elsa wants Sanders to be president*. But that doesn't accord with our desire ascription practices. This is the temporal version of a well known problem for desire ascriptions, what Lycan (2012) calls the "grain problem" for desires and what Grant & Phillips-Brown (2020) call the "ways specificity" of desire. (Cf. also Fara 2013.) My proposal provides a natural way of dealing with the temporal version of this problem. I don't suppose it provides a way of dealing with all instances of it.

denotation of the *the following week* (the week following  $t'$ ) / *next week* differ in (21a) and (21c). In (21a), it is a time  $t_n$  on January 21, whereas in (21c), it is a time  $t_{n'}$  on February 4th. So, we might schematize the inference in (21), as follows.<sup>37</sup>

- (22) a.  $(\exists p)(\exists t')(t > t' \ \& \ p = [Sl]^{t_n} \ \& \ Dlp t')$   
 b.  $(\exists t')(t > t' \ \& \ Dlp t') \rightarrow Dlp t)$   
 Therefore:  
 c.  $(\exists p)(p = [Sl] \ \& \ Dlp t)$   
 d.  $(\exists p)(p = [Sl]^{t_{n'}} \ \& \ Dlp t)$

(22c) and (22d) represent (21c) without and with the temporal adjunct, respectively. I leave the variable  $p$  in (22b) free, since (22) makes use of anaphoric *that* as opposed to the quantifier *everything she used to want*. I simply omit a schematization of *she didn't get to go* in (22).

Here's the thing that looks like it may spell trouble for my proposal about temporal adjuncts and their relation to desire content. Keep in mind that I am advocating that the temporal adjuncts in these desire ascriptions do not contribute to the content, and relegate the times to a superscript, stipulating that the superscript doesn't affect the content. By contrast, the friend of uniformity pressing the objection to the asymmetry claim will be fine with admitting that a content with no diacritical mark is temporally neutral. But insofar as they think that the temporal adjunct specifies a time indication as part of the content, they dispute my stipulation about the superscript notation; they think this contributes to the content all the same (just as the original subscript notation does). Now, the inference in (21) sounds quite bad with the continuation *next week* in (21c). However, according to what I am suggesting, the superscripted  $[Sl]^{t_n}$  where  $t_n \in 1/21/20$  has the same content as both  $[Sl]^{t_{n'}}$  where  $t_{n'} \in 2/4/20$  and the unsuperscripted  $[Sl]$ , so the inference to (22d) is just as valid as that to (22c). Then, the friend of content uniformity will argue like this: the unacceptability of (22d) is evidence that the temporal adjunct

<sup>37</sup> A reviewer suggests the following alternative formalization for something like *Leni wants to go swimming next week*, where D is now a 4-place predicate relating an agent, a content, an interval, and a time.

- i. Leni wants to go swimming next week.  
 ii.  $(\exists p)(\exists s)(p = [Sl] \ \& \ \text{one week from } t \in s \ \& \ Dlpst)$

When no temporal adverbial is provided, the middle conjunct is left out, and the interval variable is simply existentially bound.

- iii. Leni wants to go swimming.  
 iv.  $(\exists p)(\exists s)(p = [Sl] \ \& \ Dlpst)$

I like this proposal, but I kept mine so as to avoid increasing the arity of D. I leave it to future investigation whether this approach is preferable to the one I presented.

contributes to the content. So, desire contents are sometimes temporally specific (i.e., when the time is specified by an adjunct), and sometimes neutral (when not).<sup>38</sup>

However, this isn't actually a coup for the view that the temporal adjuncts specify a time as part of the desire content, because the evidence here is more equivocal than initial appearances suggest. Note that the inference in (21) is fine if it eventuates in (21c) *without* the continuation *next week*. This would be curious if adjuncts did specify a time as part of the desire content. If they did, then (21a) would be temporally specific – the content of the desire thus ascribed would be specified for a time that has passed a week ago, on January 21st. Yet (21c) (without the continuation) is most naturally interpreted as future-oriented, suggesting that the desire might be satisfied in the future, if at all. Indeed, this is the general strategy being considered in this section – the move to say that desire contents may be temporal neutral when unmodified, but temporally specific when modified by a temporal adjunct. So, a desire ascription indicating that Leni still wants *that* (as the attribution in (22) would have it) would attribute to Leni the desire to go swimming on the past date, and (22c) should be bad. So, taking temporal adjuncts in desire ascriptions to specify a time in the attitude content would not allow us to explain the acceptability of the inference in (21) when it eventuates in (22c).

Secondly, even with the continuation, (21c) isn't categorically bad. In fact, it immediately sounds better if we merely allow the conversational participants to suppose that Leni's schedule prevents her from going swimming until next week. (This sounds much better: *Two weeks ago, Leni wanted to go swimming the following week. She didn't get to go, so she still wants that. Work will prevent her from going through the weekend, so Leni wants to go swimming next week.*) Again, this shift in judgment would be mysterious if the adjunct provided a time indication to the desire content. The variability of these judgments are considerably less mysterious on my proposal, because the desire content in all of these is the same. What we do still need is an explanation of why (21c) with the continuation was degraded upon first blush. I can't here give a full theory of the pragmatics of temporal adjuncts in desire ascriptions, but the following appropriation of Grice (1989)'s maxim of relation will do for present purposes: only use a temporal adjunct in a desire ascription if the interval described by it is relevant to the satisfaction of the desire – that is, if it is the interval at which the desire content is most likely to be satisfied. So, if the

<sup>38</sup> For this really to count as a vindication of content uniformity, belief contents would have to similarly be sometimes temporally neutral and sometimes temporally specific. As I've argued in section 3, we should resist this move.



conversational participants aren't aware that Leni's schedule prevents her from going swimming until next week, providing the temporal adjunct in (22d) is irrelevant and its use is therefore infelicitous.

My points for this subsection, summarized: i) temporal adjuncts don't necessarily pose a problem for Stampe's insight; ii) our practices of ascribing desires is better accommodated on an account of temporal adjuncts that doesn't suppose that they specify a time indication in the desire content, and iii) therefore such examples don't provide compelling reasons to reject the asymmetry claim. Since they don't, they also don't vindicate content uniformity.<sup>39</sup>

## 5 Content Uniformity and the Property Theory of the Attitudes

Finally, let's consider a different sort of challenge to the asymmetry claim. This challenge comes from quarters who would deny the traditional view of propositions wholesale – the property view of the attitudes. The property view holds that there are some attitudes that are essentially indexical, and will vary between person, time, place, as the case may be. In particular, the main motivation for this view comes from consideration of *de se* beliefs, illustrated by the beliefs with content that might be described

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39 A reviewer asks some questions worthy of discussion: 1) Is the proposal supposed to imply that “Leni wants to go swimming now”, “Leni wants to go swimming tomorrow”, and “Leni wants to go swimming in two weeks” are all synonymous expressions? 2) Do they attribute the exact same mental state to Leni? The reviewer then suggests that if my proposal from this section commits me to a “yes” answer to both questions, this an implausible consequence of the proposal. These are good questions. But they raise issues I'll ultimately have to address elsewhere. For now, though, I can outline how I am inclined to respond. The proposal I advocate in this section has it that the *content* of the desire ascribed to Leni is the same in all three ascriptions. But I don't think this commits me to the view that the three desire ascriptions are synonymous. This raises a further question about how the conclusions I draw would be integrated into a semantics of desire ascriptions. The present paper hasn't been about semantics, so this is a matter for another paper. But I suspect that the point I am making can be accommodated in the semantics without too much trouble. (I'll note, though, that the reviewer's suggestion of making desire a 4-place predicate, as described in fn 37, could provide us with a way of supporting both of these claims.) Without going into considerable detail, consider: one of the dominant frameworks for the semantics of attitude ascriptions is that proposed by Hintikka (1962), where attitude verbs are a bit like modals in that they quantify over sets of worlds – namely, those worlds compatible with the ascriber's attitude. It quickly becomes clear (cf. the pioneering work by Heim (1992)) that various issues conspire to complicate the simple picture. It's generally accepted that for volitive verbs like *want*, for example, we need to avail ourselves of an ordering source in their semantics. We might accommodate my proposal by saying that, in *A wants to  $\phi$  at  $t$* ,  $\phi$  denotes the desire content whereas *at  $t$*  contributes to the ordering source. Of course, this glosses over some technical issues that would need to be sorted out if we were to take this suggestion seriously.

With respect to the second question, if mental states are individuated solely by their contents then I would have to say that Leni's mental state is exactly the same in these three attributions. Such a posture may be natural for beliefs (though cf. arguments in Stich (1983)), but I'm less convinced of it for desires.

For example, if on Monday around 11:30am, I want to eat lunch, but I'm in the mood for a burrito, and on Tuesday at around the same time I want to eat lunch, but I'm in the mood for a salad, then I'd have a desire on both days with the same content – *that I eat lunch*. But I'd be willing to deny that my mental state is exactly the same on both days. I'm unsure what these considerations ultimately suggest. This might just be a version of the grain problem discussed earlier. It might suggest an inclination toward holism about mental states on my part. But either way, it does make it seem plausible that the individuation of mental states isn't due solely to their content – at least for desires – and it gives me the latitude to answer the second question in the negative. But both of these questions deserve more attention than I can give them here.

by the following sentences. As far as traditional propositions go, on most frameworks, (23a), as uttered by Willem, would express the same proposition as (23b).

- (23) a. My pants are on fire.  
b. Willem's pants are on fire.

And yet, (23a) and (23b) could figure very differently in Willem's cognitive economy. If Willem unwittingly sees a mirror image of himself, has seen people refer to this image as "Willem", and notices in the mirror that this person's pants are on fire, he may believe (23b) without thereby believing (23a). He'll probably believe (23a) soon enough; when he notices the heat on his legs and looks down at the flames, for example. But the point is that the two situations may come apart, and representing the thing Willem comes to believe when he's finally aware that *he* is in danger involves an ineliminable indexical element representing the first-personal perspective. This content, says the property theorist, is of a finer grain than a proposition.

To represent the content Willem comes to believe when he realizes that *his* pants are on fire, Lewis suggests using *centered* worlds; a world specifying a privileged position as the center. Centers are usually thought of as a position within a world that allows us to represent the perspective on the world from that position. The common metaphor invoked in service of this idea is that of a map.<sup>40</sup> A map may show you all the locations and the terrain of the area you are interested in, but even if you are sure that the map you are surveying represents the terrain you are occupying, you don't yet know your position in that terrain. You need a location-providing device (like a *you-are-here* marker on the map) to tell you this. Willem not only needs to locate himself in logical space, but also in ordinary space. Determining which world he inhabits will not tell them where in that world he is located. So Lewis: "He needs to identify himself as a member of the subpopulation whose boundaries don't follow the borders of the worlds – a subpopulation whose sole member at [Willem]'s own world is [Willem] himself," (Lewis 1979: 520). Centered propositions – sets of centered worlds – aim to provide the set-theoretic analogue of such a marker.

The extra structure in this view makes attitude contents more fine-grained than the possible worlds contents because there are many potential centers per world. Let's say that a center is a pair of an individual and a time,  $\langle x, t \rangle$ , and a world with that center is  $\langle w, \langle x, t \rangle \rangle$ .<sup>41</sup> When one has a belief with

40 Cf. Lewis 1979: p. 520 & p. 528, but also Egan (2006)'s presentation of the idea.

41 There is considerable variation on how to model the center. Construing centers as a pair of an individual and a time is Lewis (1979)'s view. Quine (1968) thought of centers as ordered pairs of worlds and a set of spatial coordinates. Though it's easy

a centered-propositional content  $p$ , then the content of that belief is a set of centered worlds, namely those world-center pairs that are compatible with  $p$ . Assuming a person's counterparts are unique in the world they occupy, then on the Lewisian model the content of a *de se* belief is a set of possible individuals, namely the individuals having the property in question. When Willem comes to believe (23a), his belief is the set of possible individuals with their pants on fire; in believing (23a), he self-attributes the property of being an individual with burning pants.

Lewis's centered propositions pose a *prima facie* challenge to the asymmetry claim. That's because the property view countenances all manner of "neutral" content, including temporally neutral content, in at least two respects. On the one hand, on some of the frameworks posited to model *de se* content, the content of a *de se* belief is temporally neutral. This would make sense, since for Lewis the center is an individual-*time* pair, so the resulting content is neutral with respect to individuals and times. On the other, there are cases in which the beliefs are not about the self specifically, but about the present moment. These are *de nunc* thoughts, like *It is 5 o'clock now*. or *Today is Tuesday*. The reason for distinguishing these from traditional propositions is similar as in the *de se* case. Assuming it is five o'clock, the traditional, eternalist proposition *that it is 5 o'clock now* represents the trivial state of affairs that 5 o'clock is 5 o'clock. Represented like this, it's not clear why such a belief would motivate us to action. But clearly, the belief *that it is 5 o'clock now* can motivate us to hurry out of our seats, if 5 o'clock is the time we need to leave to catch a flight, and we'd lost track of time. Modeling these thoughts on the centered proposition framework would still appeal to the time coordinate of the center, and so they'd be temporally neutral. If this is on the right track, we have two kinds of instances of temporally neutral beliefs. Does this mean the asymmetry claim is thereby undermined and content content uniformity vindicated?

I won't argue against the centered worlds framework in any detail, but it's worth noting the following. In spite of the fact that the framework is one of the mainstream positions on attitude content, there's a growing literature on whether the kinds of considerations pointed out above do in fact motivate a revisionism about attitude (and linguistic) content.<sup>42</sup> Such *de se*-skeptics have various ways of accommodating the putative evidence in favor of the centered content. These often involve supplementing traditional propositions with some device – fregean modes of presentation, for example – and leveraging this for an explanation of self-regarding or present-regarding beliefs. But it's not clear that any such

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enough to get a rough idea for what a center is, adequately precisifying and modeling this idea is more difficult. Cf. Liao 2012 for discussion.

42 Cf. Cappelen & Dever 2013, Cappelen & Hawthorne 2009, Cresswell 1985, Lycan 1988: Ch. 4, Magidor 2015, Stalnaker 1981.

strategy will work in the case of desire contents, for two reasons. The first reason is simple, and adverts to the discussion above; if desire contents are construed as supplemented, temporally specific propositions, they run afoul of Stampe's insight, and get the nature of satisfaction conditions wrong. Secondly, it usually won't be at all clear which temporally specific proposition to supplement. With belief content, this is easily determined – if the thought were *that it's 5 o'clock now*, the proposition would be that 10:30AM Eastern Standard Time (assuming this is the time of one's thinking) is 5 o'clock, with 10:30AM having something like a present-regarding mode of presentation. But if I have the desire *that Clinton be president*, there's no clear candidate time to supplement in such a way as to mimic the apparent temporal neutrality of the content. What this shows us is that if the centered proposition framework is wrong, *de se*-skeptics won't be able to accommodate the temporal neutrality of desire in the same way they aim to explain apparent *de se* and *de nunc* examples.

Having said this, let me simply grant that the phenomena described by the property view are genuine, and ask whether adopting the centered worlds approach actually vindicates content uniformity. One might think that if one grants the property theory, the asymmetry claim is thereby neutralized. After all, the property view countenances temporally neutral contents in the form of centered propositions, and so if the arguments of the paper about desire content's temporal neutrality are on track, there's nothing more to the challenge to content uniformity.

But this would be too quick. Content uniformity is not simply a claim about the appropriate kinds of things to model contents – whether it's propositions or properties, and what kind of thing models all the attitudes best. It's also a denial that the psychological mode constrains the kind of content the attitude might have. I take this to be the import of claims to the effect that what distinguishes beliefs from desires is not the content, but the mode, or that different attitudes relate to the same content, differing *merely* in their mode. It's a common refrain in avowals of content uniformity that some content *p* could serve as the object of a belief or of a desire. So for content uniformity to be true, we'd expect a more thoroughgoing isomorphism between belief and desire. What we *shouldn't* see, given content uniformity, is for a certain kind content to be systematically excluded from one particular mode but not the other. And if what I have been arguing about desires is correct, then temporally specific contents are precisely this kind of content.

So it won't do as a rejection of the asymmetry claim to point out that centered propositions can model desire contents. If we reflect on the technical apparatus afforded by centered propositions, it

should even come as no surprise that they can do this. That’s because the very framework offers a way of converting parameter-specific content to parameter-neutral content, and then construing the attitude as a relation to that parameter-neutral content.<sup>43</sup> We can put the question concerning content uniformity in terms of the property theory in the following way. First of all, Lewis is quick to point out that you can recover the concept of a traditional proposition from the notion of a centered proposition,<sup>44</sup> though not vice versa. As Lewis (1979: 518) puts it, “To believe a proposition is to self-ascribe the corresponding property. The property that corresponds to a proposition is a locational property: it is the property that belongs to all and only the inhabitants of a certain region of logical space.” Egan (2006) puts the point in a perspicuous way. The center can sometimes be idle, depending on the nature of the particular attitude. So, for example, if Karl sees Willem and thinks “Willem’s pants are on fire”, then he has a *de dicto* belief about Willem. Egan says that some centered contents are *boring* and some are *interesting*. Boring contents are those where the center is idle. More precisely, a centered proposition  $p$  is boring just in case for any world  $w$  and centers  $c_1, c_2$  of  $w$ ,  $\langle w, c_1 \rangle \in p$  iff  $\langle w, c_2 \rangle \in p$ . They are boring because they do not distinguish between centers. They are interesting if centers do make a difference – if there is some center  $c_3$  of  $w$  such that  $\langle w, c_3 \rangle \notin p$ . Work in formal semantics on the phenomenon of control draws on the centered worlds framework and even suggests what would make an expression interestingly centered, at least in natural language. Chierchia (1989) makes the case that PRO is a  $\lambda$ -binder that binds the free variable in the subject, thereby rendering the complement of control verbs person-neutral (and presumably also temporally neutral) content.<sup>45</sup>

If we grant that the property theory’s way of modeling parameter-neutral content is apt for the kind of temporal neutrality that desire contents exhibit, then what we see is that belief contents can be boringly centered or interestingly centered, as the case may be, but desire contents are obligatorily interestingly

43 Moreover, the point is not limited to centered propositions. Temporally neutral content can be easily represented with any so-called context-index theory which includes a time coordinate as a parameter of the index. Quite apart from any consideration of centered propositions, one could accept Lewis (1980)’s context-index framework, which includes world, time, and location parameters in the index. In the case of belief, content would be temporally specific in virtue of the time coordinate of the index being “initialized” by the time of the context, as follows:  $\lambda w. \llbracket \phi \rrbracket^{c, \langle w, t, l_c \rangle}$ . By contrast, time coordinate of the index would not be so initialized by the context for desire content, leaving it neutral with respect to this parameter:  $\lambda \langle w, t \rangle. \llbracket \phi \rrbracket^{c, \langle w, t, l_c \rangle}$ .

44 Or something *close enough* to a traditional proposition. The notion of self-ascription is essential to Lewis’s account of *de se* content, unlike for the more coarse-grained world account. The property associated with a *de dicto* belief would be the property of occupying one of a certain set of worlds (the set determined by the belief). Cf. Holton 2015 for discussion.

45 Though, as the variations on the Modified Richard Argument showed (compare (7) and (8)), the desire content appears to be temporally neutral with or without a control interpretation. For more recent accounts along the lines of Chierchia’s proposals, cf. Stephenson 2010 and Pearson 2016. It’s worth noting that semantic accounts such as these provide the tools for modeling temporally neutral desire content based on a semantics for *want*, but, since their concern is mostly semantic, their explanation for why such a semantics is required will hinge on the lexical properties of verbs like *want*. If my arguments are right, we can say something more here – that such a semantics is required for *want* but not *believe* because of the underlying attitude content.

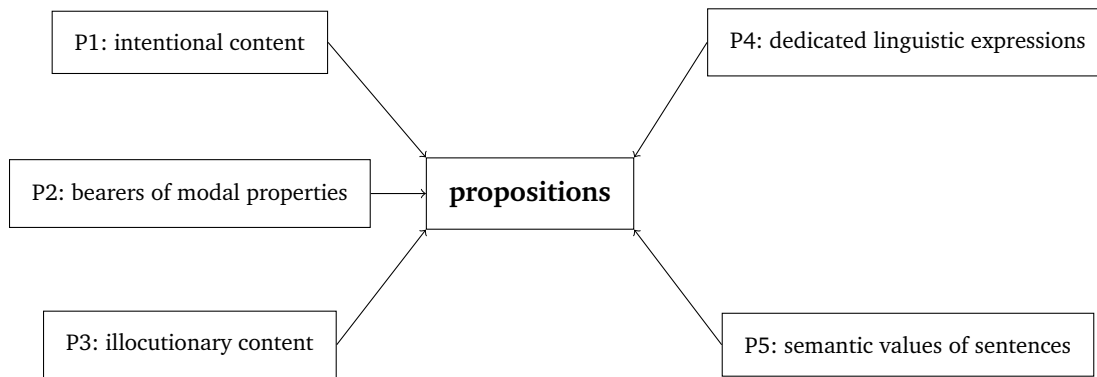
centered. So, because the property theory can represent desire contents with centered propositions, this doesn't by itself vindicate content uniformity – what it means instead is that the property theory can describe this deviation from content uniformity in its own favored ideology. What *could* restore content uniformity is if the property theory could explain *why* desire content presents a departure from boringly centered propositions. What I mean here is this. *De se* content is person-neutral on the property theory because the first person perspective is properly modeled by neutralizing the content with respect to the person parameter (*mutatis mutandis* for the other kinds of centered content we discussed). This is what is typically meant when it is said that *de se* content is essentially indexical. If there were a similar kind of explanation on hand for desire content – say, that desire content is obligatorily interestingly centered because desire content itself is essentially indexical – then the property theory could offer a way of vindicating content uniformity. This would be because the property view could explain the temporal neutrality of desire content as a predictable deviation from a standard, boringly-centered form of content, based on its central mechanism for neutralizing content with respect to some parameter.<sup>46</sup> It would say (as it does now) that attitude content is boringly centered *unless* it is essentially indexical in some way. Some belief contents are essentially indexical, and it so happens that *all* desire contents are. That would be a substantive position regarding desire contents, and would need to be argued for. In any event, the asymmetry claim is in no way committed to the essential indexicality of desires.

## 6 Conclusion

I will close with a brief discussion of why it matters if content uniformity is false. On the simple picture of attitude content presented in the introduction, the informational content of the vehicles intentional states are related to were all of a uniform type. The content of a given intentional attitude could then indiscriminately serve as the content of any old illocutionary act, and or as the denotation of dedicated linguistic expressions (propositional anaphora, for example). And since neither the mode of the attitude, nor the force of the illocutionary act, etc., constrained or affected the content of the respective attitude/ act/ etc. in any way, we don't expect to see any proprietary type of content for any intentional attitude, illocutionary act, etc. The relation between content type and propositional role is a fairly simple one, and can be represented by the figure below. Indeed, this is how the standard view of the attitudes would

<sup>46</sup> Otherwise, to say that desire contents are obligatorily interestingly centered with respect to their temporal parameter is just a recapitulation of the claim I've been arguing for, but from within the centered worlds framework. Moreover, the arguments in Nolan (2006) convince me that the strategy of arguing that desires are *always* indexical isn't a promising one.

have you see it.



Some philosophers have already advocated removing p5 from this picture, but they tend to be content leaving the lion's share of the remaining roles as above. But if content uniformity is incorrect, as I've argued, then this figure misrepresents the way content interfaces with the systems that utilize this content. Moreover, while beliefs and desires have figured as mental representations par excellence in philosophy of mind and cognitive science, cognitive scientists employ a much more expansive inventory of mental representations besides beliefs and desires – for example, representations in the perceptual system and representations that allow us to perform actions successfully. If content uniformity is false, then it becomes a more nuanced matter to say how content from one representational system might interface with our beliefs and desires.

If we confine ourselves to the traditional roles of propositions assumed in the introduction, some further lines of inquiry engendered by the rejection of content uniformity present themselves. For example, it might very well be that the content of a belief could serve as the content of some illocutionary act; an assertion, let's say. But this fact doesn't mean that the content of a *desire* could serve as the content of an assertion, if we believe and assert content of one kind of type, and desires are not of this type. Is there an illocutionary act whose content is more appropriate for the content of a desire – say, a directive or a commissive? Or is there a clause type other than a declarative such that the semantic value of this type of sentence would constitute the content of a desire – say, an imperative? I won't here speculate on the matter, but precisely such connections would need to be worked out. If content uniformity is to be rejected, the tendency to construe the output of these various content-utilizing systems as *one* type of thing is theoretically unmotivated and procrustean. Which psychological modes could share content

with which which illocutionary content (and why) would need to be determined by argument and by empirical investigation, not decided in advance by fiat.

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