

Propositions, representation, and truth

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Abstract Theories of propositions as sets of truth-supporting circumstances are committed to the thesis that sentences or other representations true in all and only the same circumstances express the same proposition. Theories of propositions as complex, structured entities are not committed to this thesis. As a result, structured propositions can play a role in our theories of language and thought that sets of truth-supporting circumstances cannot play. To illustrate this difference, I sketch a theory of transparent, non-deflationary truth consistent with some theories of structured propositions, but inconsistent with any theory of propositions as sets of truth-supporting circumstances.

Keywords Possible worlds · Propositions · Fineness of grain · Truth

1 Introduction

Propositions are supposed to play many roles in contemporary philosophy of language, linguistics, philosophical logic, and the philosophy of mind and psychology. They are taken to be the compositional values of sentences relative to contexts; the things said, asserted, or known; the objects of propositional attitudes like believing, fearing, doubting, conjecturing, or rejecting; and the fundamental bearers of truth, falsehood, and necessary truth and falsehood. Even if one rejects one or two of these individual proposals, propositions promise a degree of unification of several branches of inquiry in philosophy and the study of human cognition and communication. The gain in

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theoretical simplicity offered by such a unification is reason alone to search for an adequate theory of propositions.

Such a gain in simplicity is not the only reason to search for such a theory. A standard argument for propositions is that the validity of arguments like (1–4) is best explained by taking the range of ‘every’ as it occurs in (1) to include propositional objects of belief and assertion:

- | | |
|---|-----|
| Ed believes every true thing Sara says | (1) |
| Sara says that Tally barks | (2) |
| That Tally barks is true | (3) |
| Therefore, Ed believes that Tally barks | (4) |

(It is no accident that several of the above mentioned branches of inquiry are invoked in this argument.) The validity of this argument gives us reason to take the ‘that’-clause ‘that Tally barks’ in (2), (3), and (4) to have as its semantically assigned value the same kind of thing that the quantifier ‘every’ in (1) is taken to range over. Propositions offer the simplest account of arguments like this.¹

But what are propositions? Most contemporary theories of propositions fall into four categories, according to whether the theories entail that propositions are structured (S) or representational (R) (see Table 1). SR theories include recent work by Soames (2010, 2015) (and in King et al. 2014), King (2007a) (also in King et al. 2014), and Hanks (2015). According to Soames, King, and Hanks, propositions are structured entities that represent the world as being various ways. These theories claim direct descent from Russell’s views of propositions and Frege’s conception of thoughts, while avoiding the philosophical pitfalls plaguing those earlier theories. SNR theories include views recently defended by Speaks (also in King et al. 2014) and Richard (2014). These SR and SNR theories are sometimes grouped together as *neo-Russellian*, as each has some claim to descent from Russell; they share the assumption that propositions have some kind of constituent structure. But there can also be Fregean versions of such theories, which differ from Russellian theories over what to count as constituents (objects and properties, or modes of presentation of these). To avoid privileging either Russellian or Fregean theories (though I prefer Russellian approaches), I will call SR and SNR theories together *structuralist* theories of propositions. A structured proposition is a proposition of a structuralist theory.

NSR theories of propositions are sometimes called *primitivist* (Keller 2014). These include the view recently defended by Merricks (2015). But I am uncertain whether all primitivist theories are NSR theories, or whether all NSR theories are primitivist theories. Bealer (1998), for example, is cited as a primitivist, but Bealer says nothing about whether propositions are representational.² In addition, it is unclear to me whether the

¹ See also Cartwright (1987), Soames (1999), King et al. (2014), and Merricks (2015) for arguments for propositions. The argument above is agnostic about what Rosefeldt (2008) calls the *Singular Term Assumption*: the thesis that ‘that’-clauses are singular terms that can occupy argument positions in sentences. For an alternative to propositions, see Higginbotham (2006).

² Hanks (2015, p. 44) cites McGlone (2012) as a primitivist, but on McGlone’s view, propositions are structured, representational entities.

Table 1 Contemporary theories of propositions

	Representational (R)	Non-representational (NR)
Structured (S)	King (2007a) Soames (2010) Soames (2015) Hanks (2015) McGlone (2012)?	Richard (2014) Speaks (in King et al. 2014)
Non-structured (NS)	Merricks (2015)	Stalnaker (1984) Edelberg (1994) Ripley (2012) Bealer (1998)? Jago (2015)?

arguments below are sound from a primitivist perspective, because I am unclear on some of the details of primitivism. For example, I argue below that structuralist views of propositions can distinguish between two propositions that have the same truth conditions on the grounds that one has a constituent that the other does not. A primitivist about propositions cannot argue in this way, because unstructured propositions do not have constituents.³ For these reasons, I propose to set primitivist views aside here. In Sect. 5.2, where I consider in more detail the theory of propositions defended by Jago (2015), I consider the possibility of a non-primitivist NSR theory.

The last category, NSNR, includes all views of propositions as sets of truth-supporting circumstances, such as possible worlds.⁴ Following Edelberg (1994), Ripley (2012) and others, I will call all such views *circumstantialist*, and the thesis that propositions are sets of truth-supporting circumstances *Circumstantialism*. Prominent advocates in philosophy include Stalnaker (1970, 1976, 1984), and in linguistics Von Stechow and Heim (2007).⁵

This paper is concerned with Circumstantialism as an alternative to structuralist theories of propositions. One standard reason to favor structuralist theories over circumstantialist theories is that circumstantialist propositions are too coarse-grained: we need to make semantic distinctions that circumstantialist theories do not recognize. A classic example of such a fineness of grain argument is the objection that the theory of propositions as sets of metaphysically possible worlds recognizes only one necessarily true proposition. So all necessarily true sentences—sentences that express a necessarily true proposition—express the same necessarily true proposition. This

³ Keller (2014) argues that structuralist views of propositions are no better off on this score, on the grounds that there is no convincing account of propositional constituency. She also evinces a general skepticism about propositions: “No one wants propositions in their ontology” (655). But I do not share this attitude. Perhaps I have been persuaded for too long by their benefits to feel the force of their cost. See also Footnote 21.

⁴ I consider an objection to this claim in Sect. 5.2.

⁵ As a teacher I find it pedagogically helpful, because students often find it intuitive. Even theorists not fully comfortable with its philosophical foundations may use it merely for its simplicity. I thank a referee of this journal for discussion.

consequence appears to be inconsistent with the observation that ‘ $7 + 5 = 12$ ’ and ‘ $e^{i\pi} + 1 = 0$ ’ do not mean, or say, the same thing.

In response, Ripley (2012) has shown that circumstantialist theories of propositions that include logically impossible and open circumstances (circumstances not closed under logical consequence) undermine fineness of grain arguments against Circumstantialism. Further, a commitment to logically impossible and open circumstances has led some philosophers, e.g., Jago (2015), to view structuralist propositions and circumstantialist propositions as interdefinable (at least for semantic purposes). If these philosophers are correct, then there is little at stake in the choice between circumstantialist and structuralist theories of propositions, as far as fineness of grain is concerned. I discuss this kind of response to fineness of grain arguments in Sects. 2.3 and 3.2, and I consider Jago’s interdefinability thesis in more detail in Sect. 3.1.

Yet despite Ripley’s results, and against Jago’s interdefinability thesis, I argue in this paper that structured propositions can play a role in our theories of language and thought that circumstantialist propositions cannot play. This difference between structuralist and circumstantialist theories of propositions is a consequence of a little-noticed commitment of Circumstantialism: sentences, beliefs, or assertions that represent the world as being the same way express the same proposition. In Sect. 2, I call this commitment the Representation Thesis, and in Sect. 3, I show that structuralist theories of propositions do not share this commitment. The result is a dilemma for Jago’s interdefinability thesis.

Circumstantialists sympathetic to Ripley and Jago should respond to this dilemma by adding more circumstances. In Sect. 4, however, I sketch a theory of non-deflationary truth for representational propositions, and show that the conjunction of this theory of truth and an SR theory of propositions has two significant consequences. First, it is inconsistent with the Representation Thesis. Second, it yields a philosophically satisfying explanation of the transparency of non-deflationary truth: any speaker who understands ‘is true’ is in a position to recognize that any sentence s and ‘ \ulcorner it is true that $s\urcorner$ ’ are true in all and only the same circumstances.⁶ In this case, adding more circumstances does not help. Structured propositions can, while circumstantialist propositions cannot (consistently), play the role of the bearers of transparent representational truth. In Sect. 5, I consider two objections. An Appendix illustrates the role of the Representation Thesis in both an influential fineness of grain argument due to Scott Soames and Ripley’s response to this argument.

2 Circumstantialism

In this section, I sketch a view of truth-supporting circumstances consistent with the existence of logically impossible and open circumstances, and show that sets of circumstances, understood in this way, provide a natural account of what I will call the truth-conditional content of intentional states like belief, speech acts like assertion, and declarative sentences relative to contexts. This view of circumstances differs in details from the views of other circumstantialists, but it is in line with their common

⁶ Corner quotes in this paper are used for Quinean quasi-quotation (Quine 1951, §6).

motivation. I take it to be a weakness in alternative theories of circumstances if they do not yield the consequences I identify in this section.

One lesson of this section is that at least some structuralist theories of propositions are consistent with the existence of circumstances and with truth-conditional content. As a result, a theory of circumstances alone is not a circumstantialist theory of propositions. Circumstantialism is thus seen to be a further thesis about propositions that structuralists can reject without rejecting the existence of circumstances and truth-conditional content.

2.1 Circumstances and truth-conditional content

Truth-supporting circumstances play a fundamental role in our understanding of intentional mental states like belief. An intentional mental state is representational: it represents the world as being some particular way or other. If I believe that Ben lives in Boston, my belief commits me to the world being a particular way: such that Ben lives in Boston. Similarly, to say or assert that Ben lives in Boston is to commit oneself to the world being a particular way.

By ‘the world’ above and in what follows, I will always mean the physical universe, however it actually is. Thus I distinguish between the world and the *actual* world, which I take to be the way that the world actually is. I take this distinction to be no more controversial than the distinction between myself, as a physical object, and the various ways that I am, or properties that I have. In general, then, I view circumstances (actual, possible, impossible, or open) as ways the world is, could, or could not be, or equivalently as properties that the world does, could, or could not have or instantiate.⁷ The actual world, on this picture, is just one circumstance among many, distinguished from other circumstances by being instantiated by the world. The actual world is among the metaphysically possible worlds: maximal ways it is metaphysically possible for the world to be. Circumstances more generally may include logically possible but metaphysically impossible ways the world could (or could not) be, logically impossible ways the world could not be, and even logically open ways—properties of the world not closed under logical consequence.

I will not, in this paper, say much more than this about what it is to represent the world as being a particular way. I assume only that any account of it is a theory of some relation between representations (such as intentional states like belief or particular representational acts like assertion) and ways the world could (or could not) be. We are here at some of the most fundamental questions in the philosophy of mind and language. We might, for example, follow [Stalnaker \(1970\)](#), and base our account of representation on reliable indication and on our need, as rational agents acting in

⁷ Stalnaker (2012, p. 12) uses the phrase ‘the total universe’ for what I call the world. The claim that there are properties that the world could not have is no more controversial than the claim that there are properties that I cannot have—see [King \(2007b\)](#) for discussion. The view of circumstances I defend here is similar to the way that [Richard \(2014\)](#) thinks of states of affairs, or [Jeff Speaks \(King et al. 2014\)](#) thinks of propositions. [Soames \(2007\)](#) offers a related view of circumstances, but on Soames’s view, circumstances are properties of making sets of propositions true. As a result, circumstances on Soames’s view cannot play the same role in the theory of truth presented in Sect. 4. See also [Kripke \(1980\)](#).

the world, to sort the possible outcomes of our actions into those we favor and those we do not. Whether such an account works is a big question in the philosophy of mind, and I do not propose to answer it here. I submit it only as evidence that there already are sophisticated attempts to understand what is involved in representing the world as being a particular way.

Now let r be any intentional mental state, assertive speech act, or sentence relative to a context, and let w be any circumstance (or way the world could or could not be). We may now ask: if the world were to instantiate w (or be that way), would the world be as r (actually) represents the world as being? If the answer is affirmative, then I will say that w is as r represents the world as being. As a result, for any intentional state, assertive speech act, or sentence (relative to a context) r , there is a set of circumstances that are as r represents the world as being. In what follows, I will call this the truth-conditional content of r :

Definition (*Truth-Conditional Content*) The truth-conditional content of a representation r is the set of circumstances w such that if the world were way w , then the world would be as r represents the world as being.⁸

Truth-conditional content, understood in this way, is central to the enterprise of truth-conditional semantics. A sentence s relative to a context c represents the world as being some way, and so has some truth-conditional content. A semantic theory should at least show how the truth-conditional content of any sentence s relative to a context c is systematically derived from a theory of the meanings of the constituents of s relative to c . As Lewis (1970, p. 18) puts it, “Semantics with no treatment of truth conditions is not semantics.” It turns out that truth conditions, for Lewis, are sets of metaphysically possible worlds (at least initially—Lewis (1981) defends sets of context-index pairs over propositions relative to contexts).⁹ Since, for Lewis, circumstances just are metaphysically possible worlds, truth conditions, for Lewis, are just what we have called truth-conditional content.¹⁰

2.2 Circumstantialism and the representation thesis

The view of truth-conditional content sketched in Sect. 2.1 says nothing about propositions. As a result, this view of truth-conditional content is consistent with at least some structuralist theories of propositions. SR theories of propositions, for example, take propositions to be representational. Thus given the definition of truth-conditional

⁸ Extending this conception of truth-conditional content to impossible circumstances relies on the coherence of reasoning using counterfactuals with impossible antecedents. (We may, for example, consider whether the world would be as a sentence s relative to a context c represents the world as being were the world to be such that Hesperus is not Phosphorus.) This is controversial. See e.g. Nolan (1997), Williamson (2007, pp. 171–175) and Yagisawa (2010, pp. 186–190).

⁹ In this paper I discuss neither recent compositionality objections to propositions (Rabern 2013; Yli-Vakkuri 2013), nor recent concerns about multiple indexing (Rabern 2012). These objections must be addressed in any full defense of the use of propositions in semantics.

¹⁰ I use ‘truth-conditional content’ instead of ‘truth-conditions’ because some philosophers (e.g., Jago 2017) take truth conditions to be sets of only metaphysically possible worlds, while recognizing impossible and open worlds. I consider a variation on this proposal in Sect. 5.1.

content above and SR theories of propositions, structured propositions have truth-conditional content. In this way, SR theories satisfy Lewis's requirement for semantics: an assignment of structured propositions to sentences (relative to contexts) determines an assignment of truth-conditional content. (NSR theories also satisfy Lewis's requirement for this reason.) This point is key to the arguments of Sects. 3 and 4, but for now the consistency of structuralist theories with the existence of truth-conditional content shows that our account of truth-conditional content sketched above does not entail that propositions are sets of circumstances.

To arrive at this further thesis, we may identify propositions with truth-conditional content. In what follows, I use 'propositional content' as a general term for the proposition expressed by a sentence relative to a context, the proposition (or propositions) asserted or said in an assertive speech act, or the propositional objects of belief or knowledge:

CIRCUMSTANTIALISM

For any representation r (including at least intentional states, assertive speech acts, and sentences relative to contexts), the truth-conditional content of r = the propositional content of r (or the proposition expressed by r).

So understood, Circumstantialism is a thesis common to many theories of propositions, because a complete circumstantialist theory of propositions requires an account of circumstances. If circumstances are only metaphysically possible worlds, then all necessary truths will express the same proposition. But if circumstances include metaphysically impossible worlds, we may distinguish between the proposition that $7 + 5 = 12$ and the proposition that $e^{i\pi} + 1 = 0$. Thus different theories of circumstances yield differences in the individuation of circumstantialist propositions.¹¹

Assume we have selected a theory of circumstances (it doesn't matter which one), and let r_1 and r_2 be any two representations:

Definition (*Representational Pairs*) r_1 and r_2 are a representational pair—or represent the world as being the same way—if and only if for every circumstance w of the selected theory, w is as r_1 represents the world as being if and only if w is as r_2 represents the world as being.

It follows that if r_1 and r_2 are a representational pair, then they have the same truth-conditional content, and so according to Circumstantialism they express (or have as their content) the same proposition. Conversely, if according to Circumstantialism r_1 and r_2 express the same proposition, then they are a representational pair. For suppose that r_1 and r_2 are not a representational pair. Then they do not represent the world as being the same way, and so there is some circumstance w (some way that the world could or could not be) such that w is as exactly one of r_1 or r_2 represents the world as being. In this case, w is in the truth-conditional content of r_1 but not r_2 , or vice-versa. Thus given Circumstantialism, r_1 and r_2 express distinct propositions.

¹¹ In the statement above, I make the simplifying assumption that a representation r always has a unique propositional content. But Circumstantialism is consistent with views such as speech-act pluralism, according to which a single act of assertion may express multiple propositions.

The arguments of the previous paragraph show that Circumstantialism entails the following thesis:

REPRESENTATION THESIS

For any representations r_1 and r_2 (like beliefs, or sentences relative to contexts), r_1 and r_2 are a representational pair if and only if the propositional content of r_1 = the propositional content of r_2 .

The Representation Thesis in turn reveals that circumstances are playing two roles in circumstantialist theories of propositions. On one hand, a theory of circumstances is a theory of the limits of how the world can be represented as being. On the other hand, sets of circumstances fix propositional content. Together, these two roles determine the limits of meaning: for any circumstantialist theory of propositions, the selected theory of circumstances is also a theory of the limits of what can be said or thought.¹²

2.3 The representation thesis and fineness of grain

Fineness of grain arguments against circumstantialist theories of propositions turn on this consequence of the Representation Thesis. Let classical circumstantialism, for example, be Circumstantialism plus the identification of circumstances with metaphysically possible worlds. Classical circumstantialism restricts how the world can be represented as being to how the world can be. One consequence of these strong restrictions is that every necessarily true sentence represents the world as being the same way. For if ‘ $7 + 5 = 12$ ’ represents the world as being some way that ‘ $e^{i\pi} + 1 = 0$ ’ does not (or vice-versa), then there is some circumstance that is as one of the sentences, but not the other, represents the world as being. Such a circumstance would be metaphysically impossible. It follows, given the Representation Thesis, that every necessarily true sentence expresses the same proposition. Metaphysical necessity, according to classical circumstantialism, is the limit of meaning. To avoid this result, circumstantialists must expand the limits of meaning to include at least epistemically possible but metaphysically impossible circumstances.

This is an example of what I will call the basic circumstantialist strategy: in order to allow for more fine-grained distinctions in what can be said or thought, circumstantialist theories of propositions require more fine-grained distinctions between circumstances. Given the Representation Thesis, the basic circumstantialist strategy is the only way for circumstantialist theories to make more fine-grained distinctions in what can be said or thought. We also see this strategy in play in Ripley’s (2012) response to Soames’s (1987) influential fineness of grain argument. Soames argues that given any circumstantialist theory committed to both (i) standard formal semantic rules, and (ii) the thesis that proper names, indexicals relative to contexts, and variables relative to assignments are directly referential, (5) entails (6):

¹² This idea traces back to Wittgenstein (1922), although circumstantialists need not follow him in declaring the limits themselves meaningless (Stalnaker 1996, pp. 201–204).

Ed believes that ‘Hesperus’ refers to Hesperus, and ‘Phosphorus’ refers to Phosphorus, (5)

Ed believes that $\exists x$ (‘Hesperus’ refers to x and ‘Phosphorus’ refers to x). (6)

But Ed can have simple semantic beliefs about the names ‘Hesperus’ and ‘Phosphorus’ without believing that the names are coreferential.

In Soames’s argument, the limits of meaning are determined by the rules of the formal semantic theory. As a result, any circumstantialist response to Soames’s argument must abandon at least some of these formal semantic rules (including perhaps direct reference). This is just how Ripley proceeds. He shows that a semantic theory that replaces some of Soames’s semantic rules with rules that allow for logically impossible and open circumstances avoids Soames’s fineness of grain argument. I sketch the details of Soames’s argument and Ripley’s response in the Appendix.

Jens Christian Bjerring and Wolfgang Schwarz (2017) are skeptical of this use of the basic circumstantialist strategy. Bjerring and Schwarz argue that the introduction of logically impossible and open circumstances requires abandoning many of the most appealing features of circumstantialist theories of propositions (among them the semantic assumptions used by Soames). These features, they argue, are what motivate Circumstantialism. If Bjerring and Schwarz are correct, then circumstantialists face a dilemma: abandon the motivation for their theory, or be vulnerable to fineness of grain objections. But even if Bjerring and Schwarz are incorrect, it remains the case that circumstantialist theories of propositions are limited in ways that structuralist theories of propositions are not. The argument of the next two sections is not a fineness of grain argument (though fineness of grain considerations arise in one horn of the dilemmas in Sects. 3.1 and 4.2), but it is similar in spirit: I will show that structured propositions can play a role in our theories of language and thought that circumstantialist propositions cannot play.

3 Structuralism and the representation thesis

Unlike Circumstantialism, structuralist theories of propositions do not entail the Representation Thesis. This is because structuralist theories of propositions posit something structured between representations and their truth-conditional contents. SR theories take these structured entities to be representational; SNR theories do not. But in both cases, the structured entity posited as an intermediate has two key features: (i) it is the propositional content of a representation, and (ii) it determines a truth-conditional content.

The second of these two features may come about in different ways for SR and SNR theories, respectively. On SR theories, propositions are representations. Thus on SR theories, as we have seen, a proposition determines a truth-conditional content by itself representing the world as being some way. On SNR theories, matters are more subtle, but taking propositions to be states of affairs (Richard 2014) or structured properties (Speaks—in King et al. 2014), we may identify for each structured

proposition p the set of circumstances w such that if the world were to instantiate w , then p would either obtain or be instantiated. For convenience, I will thus also talk of propositions on SNR theories as having truth-conditional content, though throughout it should be understood that the relation between a structured proposition and its corresponding truth-conditional content may vary from one theory of structured propositions to another.

Given these features of structured propositions, there may be cases where two (or more) sentences express distinct propositions while having the same truth-conditional content.¹³ Here is one candidate for such a case: let s be any declarative sentence (of English) not containing demonstratives or other referentially promiscuous expressions, let p be the structured proposition expressed by s (relative to a context c and assignment f), and let q be the structured proposition expressed by the conjunction $\lceil s$ and $s \rceil$ (relative to c and f).¹⁴ On most structuralist theories of propositions, p and q are distinct. Yet on SR theories at least, it is natural to suppose that p and q are a representational pair.¹⁵ If this is correct, then the sentences s and $\lceil s$ and $s \rceil$ are also a representational pair (in virtue of expressing representational propositions that are a representational pair—see (d) in Sect. 4.2). Since the sentences s and $\lceil s$ and $s \rceil$ (relative to c and f) are themselves representational, this constitutes a counterexample to the Representation Thesis for SR theories of propositions: s and $\lceil s$ and $s \rceil$ have the same truth-conditional content, and so are a representational pair, but express distinct propositions. Thus unlike Circumstantialism, some structuralist theories of propositions do not entail the Representation Thesis.

3.1 A dilemma for interdefinability

This difference between circumstantialist and structuralist theories of propositions challenges a further thesis stated explicitly by Mark Jago:

INTERDEFINABILITY

...the two views about propositions are inter-definable and inter-substitutable. Semantic theorists may move freely between the two conceptions of what propositions are.

...the Russellian and the sets-of-worlds propositions *that* A are completely inter-definable. As semantic theorists, we can move freely between the Russellian and the sets-of-worlds notions. (Jago 2015, pp. 586, 594)

¹³ Soames (2015) offers examples of representationally identical but cognitively distinct propositions. These are also cases of distinct propositions that have the same truth-conditional content. But the examples that concern Soames involve features like the *de se*, in which the propositions under consideration predicate the same properties of the same objects. Whether the propositions in Soames's examples have the same structure turns on questions about the nature of propositional structure that are not the concern of the present paper. The propositions in question in the present paper clearly differ in structure in virtue of differing in the number or arrangement of their semantically determined constituents.

¹⁴ For referential promiscuity, see Georgi (2015).

¹⁵ This is not required—structuralist theories of propositions are consistent with the existence of logically impossible circumstances true at exactly one of s and $\lceil s$ and $s \rceil$.

Interdefinability, for Jago, seems to involve two features: (i) an isomorphism between the propositions of some circumstantialist and structuralist theories (Jago 2015, pp. 588, 593), and (ii) the claim that we may move freely between such theories.¹⁶

In virtue of (i), circumstantialist theories and structuralist theories agree on fineness of grain. What is involved in moving freely between theories in (ii) is never made entirely clear, but moving freely would presumably rule out a case in which a structuralist theory and circumstantialist theory assign distinct truth-conditional contents to the same sentence. In such a case, at most one of the theories is true, by the most basic standards of semantics. Moving from one kind of theory to the other will require changing what consequences one endorses.

If this weak condition on interdefinability is correct, then examples like the one above raise a challenge for interdefinability. Let T be a theory of structured propositions according to which s and $\lceil s \text{ and } s \rceil$ are a representational pair. According to T , these sentences express distinct structured propositions. Yet according to any circumstantialist theory of propositions that assigns distinct propositions to s and to $\lceil s \text{ and } s \rceil$, the two sentences do not represent the world as being the same way. Thus given T , interdefinability faces the following dilemma: (i) if s and $\lceil s \text{ and } s \rceil$ express the same circumstantialist proposition, then the resulting circumstantialist theory of propositions differs from T over fineness of grain. On the other hand, (ii) if s and $\lceil s \text{ and } s \rceil$ express distinct circumstantialist propositions, then the resulting circumstantialist theory differs from T over the truth-conditional content of at least one of s and $\lceil s \text{ and } s \rceil$. This is because according to T , the sentences are a representational pair. Thus they have the same truth-conditional content. But according to any circumstantialist theory that assigns s and $\lceil s \text{ and } s \rceil$ distinct propositions, s and $\lceil s \text{ and } s \rceil$ differ in truth-conditional content. As we noted above, at most one of these theories is true.

We may also state the second horn of the dilemma in terms of Lewis's requirement for a semantic theory. If semantics is a theory of anything, then there is a correct semantic theory for English. But a necessary condition for a correct semantic theory for English, given Lewis's requirement, is that it assign the correct truth-conditional content to every sentence of English. Theories that entail inconsistent results about the truth-conditional contents of sentences of English cannot both meet this condition.

On either horn of this dilemma, interdefinability is false. It follows that structuralist propositions can play a role in our theories of language and thought that circumstantialist propositions cannot play. In virtue of its commitment to the Representation Thesis, no circumstantialist theory of propositions can assign distinct propositions to the sentences s and $\lceil s \text{ and } s \rceil$ while assigning those sentences the same truth-conditional content. This is precisely what T does. Thus no circumstantialist theory can generate all of the semantic consequences of T .

¹⁶ In endorsing interdefinability, Jago departs from Ripley (2012). On Ripley's view, circumstantialist propositions are (or at least could be) more fine-grained than structured propositions. This turns on Ripley's endorsement of Edelberg's (1994) discussion of the weak matching assumption. I will not discuss this further issue in this paper, other than to note that it is another way to distinguish between circumstances, and so is another example of the basic circumstantialist strategy.

3.2 Abundance

One objection to this dilemma is to insist that s and $\lceil s$ and $s \rceil$ do not represent the world as being the same way. T gives us no reason to believe that s and $\lceil s$ and $s \rceil$ are a representational pair: it was stipulated for the purpose of the argument (see note 15). Since this consequence of T is essential to the dilemma above, rejecting this consequence is sufficient to avoid the dilemma. If s and $\lceil s$ and $s \rceil$ do not represent the world as being the same way, then they differ in truth-conditional content. It follows that the argument of the second horn fails: for any adequate structuralist theory, circumstantialists may adopt the presupposed theory of circumstances, and assign to s and $\lceil s$ and $s \rceil$ distinct circumstantialist propositions.

We may state the objection in a different way. Let us say that circumstances are abundant if and only if there is a circumstance for every impossibility and failure of consequence:

ABUNDANCE

the most plausible comprehension principle for impossible worlds is that for every proposition which cannot be true, there is an impossible world where that proposition is true. (Nolan 1997, p. 542)

If circumstances are abundant, then s and $\lceil s$ and $s \rceil$ will not represent the world as being the same way: there will be some impossible circumstance that is as one of these sentences, but not the other, represents the world as being. Thus if circumstances are abundant, the Representation Thesis may turn out to be true even for our best theories of structured propositions. Without an independent reason to take s and $\lceil s$ and $s \rceil$ to be a representational pair, T at best appears to be ad hoc, and at worst begs the question against Abundance.

This appeal to Abundance is another example of the basic circumstantialist strategy identified in Sect. 2.3. The theory T above entails that s and $\lceil s$ and $s \rceil$ represent the world as being the same way. Theories of abundant circumstances reject this entailment by distinguishing between circumstances that T does not distinguish. Thus even granting Abundance, we may summarize the conclusions of this section as follows: (i) structuralist theories of propositions are consistent with the existence of representational pairs that differ in propositional content. This shows that (ii) if circumstances are not abundant, structured propositions can play a role in our theories of language and thought that circumstantialist propositions cannot play. In the next section, I consider another such role.

4 Truth and representation

The representational pairs of T are purely matters of stipulation. In this section, I argue that when combined with a philosophically simple but non-deflationary theory of truth, SR theories of propositions also entail the existence of representational pairs. As a result, the dilemma in Sect. 3.1 may be reinstated for any sentence s and the truth-ascription \lceil it is true that $s \rceil$. The representational pairs predicted by the resulting theory also explain the transparency of this non-deflationary truth.

4.1 Minimal realism

The theory of truth-conditional content in Sect. 2.1 is consistent with a natural non-deflationary, or realist, theory of truth as accurate representation:

MINIMAL REALISM

For a representation r to be true is for the world to be as r represents the world as being. Generalizing to truth at a circumstance w , for a representation r to be true at a circumstance w is for w to be as r represents the world as being (r would be true were w actual).¹⁷

I call Minimal Realism a realist theory of truth because it captures the correspondence intuition that to say something true is to get something right about the world. It goes beyond deflationary theories in attributing to truth an underlying nature. As a result, it entails a truthmaker principle: every true representation is made true by the state of affairs of the world being the way it is. Thus every truth has at least one truthmaker.¹⁸

Whether this consequence of Minimal Realism is problematic is a further question. I call the theory minimal because it is committed to only one truthmaker. This is weaker than many truthmaker principles, which require distinct truthmakers for distinct truths. A weak truthmaker principle like the one above may not satisfy all of the demands of a theory of truthmakers, but I will set this issue aside here. For objections to stronger truthmaker principles generally, see Williamson (1999, 2013), Merricks (2007), and Soames (2008).

Minimal Realism is a theory of the nature of monadic truth for representations. According to Minimal Realism, all representations are bearers of truth. Thus if propositions are representational, then Minimal Realism is also a theory of propositional truth. Thus Minimal Realism is a natural theory of truth for SR and NSR theories of propositions. But so understood, Minimal Realism is not a theory of truth for non-representational propositions. For this reason, I set SNR theories aside for the remainder of this paper. I return to NSR theories in Sect. 5.2.¹⁹

4.2 Truth and the representation thesis

The combination of SR theories of propositions and Minimal Realism has surprising philosophical consequences. (Whether NSR theories have these consequences when combined with Minimal Realism is an open question. See Footnote 21.) Let s be any declarative sentence of English not containing the word ‘true’ (for simplicity). Let p

¹⁷ This view of truth was implicit in much of the discussion in Sect. 2. It is important to recognize that Minimal Realism explains truth at a circumstance in terms of truth simpliciter. See also Plantinga (1976) and Soames (2011).

¹⁸ Modal truths, such as the claim that Ben could have lived in Baltimore, are more subtle. For some of the issues here, see Merricks (2007, Ch. 5). Thanks to Marc Johansen for discussion.

¹⁹ It is difficult to know what to make of circumstances, and hence Circumstantialism, without something like Minimal Realism. Circumstances are the foundation of a non-deflationary account of truth-conditions. So Circumstantialism is going to require some kind of non-deflationary theory of truth. Thanks to a referee of this journal for discussion.

be the truth-conditional content (not the propositional content) of s relative to some context c and assignment f , and let q be the truth-conditional content (relative to c and f) of the truth ascription \ulcorner it is true that $s\urcorner$. Given these stipulations, (a) and (b) are immediate consequences of the definition of truth-conditional content:

For any circumstance w , $w \in p$ if and only if w is as s (relative to c and f) represents the world as being. (a)

For any circumstance w , $w \in q$ if and only if w is as \ulcorner it is true that $s\urcorner$ (relative to c and f) represents the world as being. (b)

Given the basic assumption in this paper that sentences (relative to contexts) are representational, the sentence \ulcorner it is true that $s\urcorner$ (relative to c and f) represents the world as being such that the proposition expressed by s relative to c and f is true. Thus together with Minimal Realism, SR theories of propositions yield (c):

\ulcorner it is true that $s\urcorner$ (relative to c and f) represents the world as being such that it is as the proposition expressed by s (relative to c and f) represents the world as being. (c)

Furthermore, (d) is an immediate consequence of both SR and NSR theories of propositions, because on such theories, the truth-conditional content of a sentence relative to a context just is the truth-conditional content of the proposition expressed by that sentence relative to that context (in other words, s and the proposition expressed by s are a representational pair):

s (relative to c and f) represents the world as being the same way as the proposition expressed by s (relative to c and f) represents the world as being. (d)

Together, (b), (c), and (d) yield (e):

For any circumstance w , $w \in q$ if and only if w is as s represents the world as being. (e)

Given (e) and (a), it follows that for any circumstance w , $w \in p$ if and only if $w \in q$. Thus given Minimal Realism and SR theories of propositions, s and \ulcorner it is true that $s\urcorner$ have the same truth-conditional content.²⁰

The above argument shows that given SR theories of propositions and Minimal Realism, (7) and (8) are a representational pair that express distinct propositions:

Mathematics reduces to logic. (7)

It is true that mathematics reduces to logic. (8)

²⁰ Harry Deutsch, at the 2014 Illinois Philosophical Association Conference, sketched a related argument in comments on an early version of this paper before I had fully articulated Minimal Realism. The present argument is a descendent of this suggestion (though I make no claim to his approval). Thanks also to David Chalmers for very helpful discussion of an early statement of this version of the argument.

The propositions expressed by (7) and (8) are distinct because the latter has a constituent that the former does not.²¹ Thus (7) and (8) are a counterexample to the Representation Thesis for SR theories of propositions and Minimal Realism about truth.

As a result, SR theories of propositions together with Minimal Realism reintroduce the dilemma of Sect. 3.1 for Jago's interdefinability thesis: if (7) and (8) express the same circumstantialist proposition, then there is disagreement with SR theories over fineness of grain. If they express distinct circumstantialist propositions, then they are not a representational pair. On either horn, interdefinability fails.

Furthermore, an appeal to Abundance is not sufficient to object to this theory of propositions. The theory T of Sect. 3 was stipulated to entail the existence of representational pairs. As a result, it could be accused of begging the question against Abundance. The combination of SR theories of propositions and Minimal Realism, in contrast, entails the existence of representational pairs (via the argument (a–e) above). Thus unlike in T, the existence of representational pairs that express distinct propositions is a consequence of the details of the theory. As a result, Abundance is now at best an alternative hypothesis, not an objection. I return to this point again in Sect. 5.1. First, however, I wish to call attention to a further consequence of (a–e): an explanation of the transparency of representational truth. Structured propositions play a role in this explanation that circumstantialist propositions cannot play.

4.3 Bearers of transparent truth

To say that truth is transparent is to say that s and \ulcorner it is true that $s\urcorner$ are in some strong way equivalent to one another. Sometimes transparency is described as the conceptual simplicity of any instance of the T-schema for propositions (Horwich 1998, p. 138):

T- SCHEMA FOR PROPOSITIONS

It is true that S (or that S is true) if and only if S

Alternatively, one can take transparency to amount to primitive inference rules:

CAPTURE: $s \vdash \ulcorner$ it is true that $s\urcorner$

RELEASE: \ulcorner it is true that $s\urcorner \vdash s$

Sometimes transparency is stated as a thesis of intersubstitutivity: s and \ulcorner it is true that $s\urcorner$ can always be substituted for one another within other sentences (as long as they are not in the scope of quotation marks) (Beall 2009; Cobreros et al. 2013). Sometimes transparency is characterized as licensing substitution specifically within the scope of attitude ascriptions (Kalderon 1997).

Within a theory of propositions, one explanation of the transparency of truth is that s and \ulcorner it is true that $s\urcorner$ express the same proposition. This is a version of the Redundancy

²¹ NSR theories of propositions must offer some other argument here for distinguishing between the propositions expressed by (7) and (8) (relative to c and f). Given (a–e) above, NSR theories cannot appeal to truth conditions.

theory of truth. Redundancy, however, fails to account for blind ascriptions of truth. These are cases in which we use something other than a ‘that’-clause to denote a proposition. In the ascription

Logicism is true,

it is hard to see this as anything other than predicating a property—being true—of the proposition referred to by the name ‘logicism’. A similar point holds for the general claim

Everything Saul says is true. (9)

The standard semantics for quantification requires that (9) is true if and only if, for anything p said by Saul, the open formula

x is true.

is true relative to an assignment of p to ‘ x ’. This also requires predicating being true of things said by Saul. Yet if ‘is true’ is used to predicate a genuine property in blind ascriptions, then unless ‘is true’ is ambiguous, it is also used to predicate a property in sentences like (8). But ‘is true’ is not ambiguous. So ‘is true’ is used to predicate a property in (8). It follows that on SR theories of propositions, we must distinguish between the propositions expressed by (7) and (8).²²

A deflationary response to the problem of blind ascriptions is to treat truth as a minimal transparent logical property, subject to certain laws (perhaps including substitution rules), but without any philosophically significant nature.²³ Transparency, for deflationists, is explanatorily fundamental.

An SR theory of propositions and Minimal Realism, however, together offer an alternative response to the problem of blind ascriptions. Any speaker who knows the meaning of ‘true’ is in a position to recognize, via the argument (a–e) above, that any sentence s has the same truth-conditional content as ‘it is true that s ’. This explanation does not apply to cases in which we use some other expression, such as a name, to refer to or denote a proposition. A speaker may understand a sentence like ‘ n is true’, where n is some term other than ‘that s ’ denoting the proposition expressed by s (relative to c and f), without recognizing that s and ‘ n is true’ have the same truth-conditional content (relative to c and f). The difference between these cases is that a speaker can understand the term n without grasping the constituent structure of the proposition denoted by n .²⁴ Such a speaker may not recognize that the proposition expressed by s (relative to c and f) is being said to be true, and so may not be in a position to grant that ‘ n is true’ represents the world as being such that it is as the proposition expressed by s (relative to c and f) represents the world as being.²⁵ This is not possible for the case

²² See Soames (1999, pp. 232–234) and Horwich (1998, pp. 38–40) for related arguments against the Redundancy theory.

²³ Merricks (2007, p. 187) uses ‘deflationism’ for the thesis that there is no property of being true. Thus Merricks would reject the characterization of deflationary theories in the text.

²⁴ Advocates of NSR theories of propositions cannot argue in this way. See also Footnote 21.

²⁵ A similar point holds for quantification over propositions. See Kalderon (1997).

of \ulcorner that s \urcorner : anyone who understands \ulcorner it is true that s \urcorner (relative to c and f) understands \ulcorner that s \urcorner (relative to c and f) and so recognizes that the proposition expressed by s (relative to c and f) is being said to be true.²⁶

Thus SR theories of propositions and Minimal Realism offer an explanation of the transparency of non-deflationary truth. According to this explanation, the equivalence between the sentences s and \ulcorner it is true that s \urcorner is both semantic and epistemic. That the sentences s and \ulcorner it is true that s \urcorner have the same truth-conditional content is a semantic thesis. This semantic thesis is a consequence of Minimal Realism and SR theories of propositions. That a speaker who understands the word ‘true’ recognizes that s and \ulcorner it is true that s \urcorner have the same truth-conditional content is an epistemic thesis. Whether it should also be counted a semantic thesis turns on debates about semantics that I do not wish to pursue here.²⁷ The epistemic thesis explains our ready willingness to endorse instances of the T-schema, to accept substitutions of s and \ulcorner it is true that s \urcorner for one another, or to grant the Capture and Release inference rules.

Circumstantialist theories of propositions cannot offer this account of the transparency of representational truth. Given the Representation Thesis, there is no room for (7) and (8) to express distinct propositions (relative to c and f) while representing the world as being the same way. Sentences (relative to contexts and assignments) that represent the world as being the same way have the same truth-conditional content. Thus given Circumstantialism, if (7) and (8) are a representational pair, then they express the same proposition.

To be clear: the conclusion of this section is not that Circumstantialism is false. Whether Minimal Realism is the correct theory of truth is a question I have not attempted to answer here. I have identified one initially attractive feature of the theory—an explanation of the transparency of truth—but I have offered no philosophical defense of Minimal Realism. Rather, I have argued that Minimal Realism is a philosophically fruitful theory of truth for SR theories of propositions, and that the combination of SR theories of propositions and Minimal Realism about truth is inconsistent with the Representation Thesis. The resulting theory of propositions is not interdefinable with any circumstantialist theory. Thus more carefully, the conclusion of this section is that structured and representational propositions can play a role in our theories of language and thought that circumstantialist propositions cannot: being the bearers of transparent representational truth.

5 Objections

I have argued in Sect. 3 that unlike circumstantialist theories, structuralist theories of propositions do not entail the Representation Thesis. In Sect. 4, I argued that SR theories of propositions together with Minimal Realism about truth offer a prima-facie satisfying explanation of the transparency of non-deflationary truth, and that this

²⁶ Thanks to Jeff King and Peter Pagin for discussion. See also King (2002).

²⁷ Against understanding this epistemic thesis as a semantic thesis, see Soames (1989) and Williamson (2007, ch. 4).

explanation of the transparency of truth is unavailable to circumstantialist theories of propositions. In this section, I consider two objections to these arguments.

5.1 Representational content

One objection to the dilemma of Sects. 3.1 and 4.2 is that circumstantialists may identify some subset of the truth-conditional content of a representation as that which is shared in representational pairs. Call this subset of the truth-conditional content of a representation r the *representational content* of r . Circumstantialists might, for example, identify the representational content of r with the set of all maximal logically possible and closed circumstances at which r is true. They may now stipulate that representational pairs are pairs of representations that are true in all the same maximal logically possible and closed circumstances. Given this stipulation, representational pairs may express distinct circumstantialist propositions, in virtue of some logically impossible circumstance being a member of one proposition but not the other. The devil may be in the details, but let us assume for the sake of argument that a circumstantialist theory of propositions that identifies representational pairs by their shared representational content agrees with the relevant SR theory of propositions on what pairs of representations are representational pairs.

The result undermines the second horn of the dilemma for interdefinability in Sects. 3.1 and 4.2. According to the argument of the second horn, circumstantialist theories that assign distinct propositions to a pair of representations cannot treat those representations as representational pairs. Yet given the current proposal, (7) and (8) are a representational pair that express distinct circumstantialist propositions. In this way, circumstantialists resist the claim that we always lose something in moving from SR theories of propositions together with Minimal Realism to any circumstantialist theory.

While this move may allow circumstantialists to avoid the dilemma of Sects. 3.1 and 4.2, it raises another. According to all of the theories of propositions we have considered thus far—including SR theories—truth-conditional content plays two different roles: (i) it is the content of representations that determines representational pairs, and (ii) it is the basis for Lewis's requirement on semantics. It follows that according to SR theories, (iii) the same kind of content is shared in representational pairs and is the basis for Lewis's requirement. Circumstantialist theories that attempt to avoid the dilemma of Sects. 3.1 and 4.2 reject (i), and identify an alternative kind of content that is shared in representational pairs. This move presents circumstantialists with a choice: should they accept or reject (iii)? In other words, does the same kind of content (representational content) both serve to identify representational pairs and provide the basis for Lewis's requirement?

The result is a different dilemma: circumstantialists who reject (i) but accept (iii) must restate Lewis's requirement in terms of representational content. The result is a clear challenge to interdefinability. On SR theories of propositions, we may understand Lewis's requirement as the claim that an adequate semantic theory for a natural language L must assign the correct truth-conditional content to every sentence of L (relative to any context). But for circumstantialists who reject (i) but accept (iii) above,

Lewis's requirement must be understood as the claim that an adequate semantic theory for a natural language L must assign the correct representational content to every sentence of L (relative to any context).²⁸ On this theory, a sentence will have truth-conditional content relative to a context, but it is not the job of semantics to specify how this content is compositionally encoded relative to the context. Semantics is concerned with something else. In this case, moving from one theory to the other requires adopting a different view of the basic goals of semantics.

Alternatively, circumstantialists may reject (i) and (iii). In this way, circumstantialists may endorse the statement of Lewis's requirement on semantics in terms of truth-conditional content. Thus on this horn of the dilemma, circumstantialists and structuralists may agree on the basic goals of semantics. But now the second horn of the dilemma in Sects. 3.1 and 4.2 returns, because an SR theory and Minimal Realism assign the same truth-conditional content to representational pairs, while the circumstantialist theory under consideration does not. The theories still disagree on the truth-conditional content of at least one member of every representational pair. Thus at most one of the theories satisfies Lewis's requirement. As with the previous dilemma, the result is that we always lose something in moving from an SR theory of propositions together with Minimal Realism to any circumstantialist theory.

Setting this further dilemma aside, there is another response to the current objection. According to SR theories together with Minimal Realism, the failure of Abundance has the status of an empirical hypothesis: the conjunction of an SR theory of propositions and Minimal Realism entails that Abundance is false. The circumstantialist theory sketched in this section does not have this entailment. The transparency of truth may perhaps be taken as partial confirmation of the hypothesis that Abundance is false, but again, the conclusion of this paper is not that an SR theory of propositions and Minimal Realism is the right way to go. The conclusion is that the propositions of resulting theory can serve as the fundamental bearers of transparent representational truth, but circumstantialist propositions cannot.²⁹

5.2 Representational circumstantialism

A different objection to the argument of this paper is that it assumes circumstantialist propositions are never representational. Thus the argument fails to engage with a theory of circumstantialist propositions according to which such propositions are representational. Such a theory would qualify as an NSR theory in Table 1. I am less confident, however, whether it should count as primitivist.

Because it entails that propositions are representational, such a circumstantialist theory would enjoy many of the same benefits as SR theories. For example, such

²⁸ The point is not merely terminological. It will not help circumstantialists for them to stipulate that by 'truth-conditional content' they mean what I introduce in this paper under the term 'representational content'. Assuming that we grant this stipulation, it remains the case that while circumstantialists may now use the term 'truth-conditional content' in stating Lewis's requirement, they do not mean by this what we do, and so they do not avoid the point that on this horn of the new dilemma, circumstantialists must understand Lewis's requirement differently than we do.

²⁹ I want to thank a referee of this journal for a very helpful discussion of the objection in this section.

an NSR circumstantialist theory of propositions would be consistent with Minimal Realism about truth. In some remarks, Mark Jago appears to argue for an such NSR circumstantialist theory:

the Russellian and the sets-of-worlds approaches are not genuinely distinct accounts of propositional representation. (Jago 2015, p. 586)

it seems that we do not have two genuinely distinct approaches to propositional representation. Rather, it seems that we have one basic theory, which can be cashed out in one of two ways. (Jago 2015, p. 594)

If this is Jago's preferred view, then the arguments of Sects. 2, 3, and 4 do not undermine Jago's theory.

If this is the correct interpretation of Jago's remarks, however, I cannot accept the resulting account of the representational role of circumstantialist propositions. It requires two theses that I reject. The first is that circumstances (what Jago calls worlds) are representational. This thesis is also endorsed by Lewis (1986). But I see no reason to think that circumstances, or possible worlds, are representations in the sense in which a sentence relative to a context, or an assertion, or a judgment, is a representation. On the view of circumstances sketched in Sect. 2, circumstances play the roles they need to play in our theories of language and thought, but are not representations.³⁰

The second thesis I reject is that if all the members of a set *A* are representational, then *A* is representational. This thesis seems to be tacit in two places in Jago's argument:

Linguistic ersatzism re-casts the question of how worlds represent as the question of how sentences of the world-building language represent. (Jago 2015, p. 592)

Sets-of-worlds propositions represent what they represent in virtue of what is represented by the worlds they contain. (Jago 2015, pp. 593–4)

According to Jago's theory of circumstances, circumstances are sets of sentences of a Lagadonian language whose vocabulary includes everything that exists. Jago takes the sentences of Lagadonian to be representational, and we may grant this. But it does not follow that sets of sentences of Lagadonian are representational. To be representational, in the sense required for this paper, is to be a representation: it is to represent the world as being a particular way. Sets do not do this, no matter what their members are. The set

{‘Tally is a dog’}

Does not represent the world as being such that Tally is a dog. The set is not true or false. To claim otherwise is to depart radically from the conventional understanding of sets in mathematics and philosophy.³¹

Of course, if sets of Lagadonian sentences are representational in virtue of their representational members, then so presumably are sets of sets of Lagadonian sentences. In other words, the first thesis is a consequence of the second, given Jago's

³⁰ In this, I agree with Stalnaker (2012, p. 9).

³¹ In this, I agree with Soames (2015, pp. 9–11, 2010, pp. 47–48).

view of circumstances as sets of (representational) sentences. Thus if we grant Jago's second thesis, then Jago's theory of propositions does count as an NSR view. But I reject this thesis. The lesson generalizes to all circumstantialist theories: since sets are not representations, no circumstantialist theory delivers genuinely representational propositions.

6 Conclusion

The dilemma of Sects. 3.1 and 4.2 is not a fineness of grain argument, but fineness of grain considerations do play a crucial role. On the first horn of the dilemma, circumstantialist theories of propositions and SR theories of propositions differ over fineness of grain. This would be a straightforward counterexample to Jago's interdefinability thesis. Theories of abundant circumstances can avoid this conclusion by embracing the second horn of the dilemma. The result is that we may not move freely between SR theories and circumstantialist theories of propositions. On either horn of the dilemma, interdefinability fails.

The arguments of Sects. 3 and 4 show that structured propositions can play a role in our theories of language and thought that circumstantialist propositions cannot play. In virtue of this role, the combination of an SR theory of propositions and Minimal Realism navigates waters that overwhelmed no less a philosopher and logician than Frege:

The sentence "I smell the scent of violets" has just the same content as the sentence "it is true that I smell the scent of violets". So it seems, then, that nothing is added to the thought by my ascribing to it the property of truth. And yet is it not a great result when the scientist after much hesitation and careful inquiry, can finally say "what I supposed is true"? The meaning of the word "true" seems to be altogether unique. (Frege 1956, p. 293).

Frege, in this passage, is struggling to reconcile the transparency of truth, which he takes to be obvious, with redundancy, which appears to be inadequate. The argument of Sect. 4 suggests that one reason philosophers have struggled to distinguish between transparency and redundancy is that they have failed to distinguish between truth-conditional content—the circumstances at which a representation is true—and propositional content. If there is a fundamental philosophical challenge to Circumstantialism, it is not that circumstantialist theories yield insufficiently fine-grained propositions. The challenge is that by identifying propositional content with truth-conditional content, circumstantialist theories can distinguish between propositions in only one way.³²

³² In addition to those thanked in the footnotes above, I would like to thank Jennifer Head, Lorraine and John Keller, Bryan Pickel, N. Ángel Pinillos, Adam Podlaskowski, Scott Soames, and participants in the 2014 Pittsburgh Area Philosophy Colloquium, the 2014 Illinois Philosophical Association Conference, a colloquium at 2015 Pacific APA, the Ninth Barcelona Workshop on Reference, and the 2015 Mid-Atlantic Philosophy of Language Workshop. I would also like to express extra thanks to the referees of *Synthese* for their careful reading of and helpful comments on earlier drafts of this paper.

Appendix A: Soames's fineness of grain argument and Ripley's response

Following Barwise and Perry (1985, p. 153), I distinguish between Soames's argument and Soames's derivation. Soames's derivation shows that any circumstantialist theory committed to certain natural semantic assumptions, including that names, indexicals, and variables are directly referential, predicts that (5) entails (6):

Ed believes that 'Hesperus' refers to Hesperus, and 'Phosphorus' refers to Phosphorus. (5)

Ed believes that $\exists x$ ('Hesperus' refers to x and 'Phosphorus' refers to x). (6)

I will not reproduce all of Soames's derivation here. To illustrate the role of the Representation Thesis, I will focus on one fragment that reveals Soames's argument to be a fineness of grain argument. This fragment relies on the semantic theses Compositionality, Conjunction, Direct Reference, and Existential Quantification:

COMPOSITIONALITY

If S_1 and S_2 are non-intensional sentences/formulas with the same grammatical structure, which differ only in the substitution of constituents with the same semantic contents (relative to their respective contexts and assignments), then the semantic contents of S_1 and S_2 will be the same (relative to those contexts and assignments).

CONJUNCTION

A sentence $\lceil A$ and $B \rceil$ is true at a circumstance w , relative to a context c and assignment function f , if and only if both A and B are true at w relative to c and f .

DIRECT REFERENCE

Proper names, indexicals (relative to contexts), and variables (relative to assignments) are directly referential.

EXISTENTIAL QUANTIFICATION

A sentence $\lceil \exists v \phi \rceil$ is true at a circumstance w , relative to a context c and assignment f , if and only if ϕ is true at w relative to c and some v -variant of f (where a v -variant of f is a function that differs from f at most in what it assigns to v).

Given these assumptions, the fragment comprises the following lemmas:

Lemma 1 (11) is true at every circumstance at which (10) is true:

'Hesperus' refers to Hesperus, and 'Phosphorus' refers to Hesperus. (10)

$\exists x$ ('Hesperus' refersto x and 'Phosphorus' refersto x). (11)

Proof Assume that (10) is true at some circumstance w relative to some context c and assignment f . By Direct Reference, both the name 'Hesperus' and the variable ' x ' relative to the ' x '-variant of f that assigns Venus to ' x ' directly refer to Venus. So via

Compositionality, the truth of (10) at w relative to c and f guarantees the truth at w of the open formula

‘Hesperus’ refers to x and ‘Phosphorus’ refers to x

relative to c and the ‘ x ’-variant of f that assigns Venus to ‘ x ’, because the formulas have the same content (relative to c and the respective assignments). So by the right-to-left direction of Existential Quantification, (11) is true at w relative to c and f . \square

Lemma 2 *The conjunction $\lceil(10)$ and $(11)\rceil$ is true at a circumstance w iff (10) is true at w .*

Proof Left to right: assume that $\lceil(10)$ and $(11)\rceil$ is true at a circumstance w (relative to c and f —omitted henceforth). Then by Conjunction, (10) is true at w . Right to left: assume that (10) is true at w . Then by Lemma 1, (11) is true at w . Hence both (10) and (11) are true at w , and so by Conjunction is $\lceil(10)$ and $(11)\rceil$. \square

The set of circumstances at which a sentence is true is the truth-conditional content of the sentence. Thus Lemma 2 entails that (10) and $\lceil(10)$ and $(11)\rceil$ are a representational pair. Given Circumstantialism (and hence the Representation Thesis), it follows that (10) and $\lceil(10)$ and $(11)\rceil$ express the same proposition.

It is at this stage that Soames’s argument becomes a fineness of grain argument. Soames’s derivation as a whole goes through only if the result above—that (10) and $\lceil(10)$ and $(11)\rceil$ express the same proposition—holds. Distinguishing between the propositions expressed by (10) and $\lceil(10)$ and $(11)\rceil$ would block the problematic derivation, and Soames argues that other attempts to block the derivation face independent problems. If these further arguments are correct, we have independent grounds for distinguishing propositions that Circumstantialism identifies.

Ripley (2012), building on Priest’s (2005) semantics for impossible and open worlds, shows how to reject Soames’s argument.³³ The account of quantification in Priest illustrates this. Ripley adopts Priest’s notion of a *matrix*:

Call a formula a *matrix*, if all its free terms are variables, no free variable has multiple occurrences and—for the sake of definiteness—the free variables that occur in it are the least variables greater than all the variables bound in the formula, in some canonical ordering, in ascending order from left to right. (Priest 2005, p. 17)

Priest and Ripley adopt the following notational convention: where C is any matrix containing the exactly the variables $v_i \dots v_j$ free, and t_i, \dots, t_j a sequence of terms (some of which may be variables), $C(t_i, \dots, t_j)$ is the unique formula that results from substituting t_i for v_i , ..., and t_j for v_j . Given this convention, every formula is the result of substituting a unique sequence of terms in a unique matrix. The unique

³³ Elbourne (2010), in contrast, responds to Soames’s argument by rejecting Direct Reference, at least for names and pronouns.

matrix from which a formula A results via the appropriate substitution of terms is called the matrix, \bar{A} , of A . So (11) is (12) (assuming a natural alphabetic ordering of the variables), and (13) is a notational variant of (11) given the convention above:

$$\exists x(y \text{ refers to } x \text{ and } z \text{ refers to } x.) \quad (12)$$

$$\exists x(y \text{ refers to } x \text{ and } z \text{ refers to } x)(\text{‘Hesperus’}, \text{‘Phosphorus’}) \quad (13)$$

At logically impossible circumstances, Priest and Ripley treat matrices as n -place predicates that are assigned arbitrary extensions. For atomic formulas, Ripley introduces a general purpose denotation function, or $\llbracket \ \rrbracket$, that maps terms to objects or individuals and maps predicates (and matrices) to intensions (functions from circumstances to extensions). Each denotation function $\llbracket \ \rrbracket$ also determines a unique assignment f of values to variables. We can now state the rule for impossible quantification from Ripley (2012, p. 110):

IMPOSSIBLE QUANTIFICATION

For a quantified sentence $A = \bar{A}(t_1, t_2, \dots, t_n)$:

A is true at a circumstance w (relative to a context c —but I’ll follow Ripley in ignoring this while discussing his argument) if and only if $\langle \llbracket t_1 \rrbracket, \llbracket t_2 \rrbracket, \dots, \llbracket t_n \rrbracket \rangle \in \llbracket \bar{A} \rrbracket(w)$

To maintain the proper behavior of existential quantification at logically possible circumstances, we must restrict the denotation of the matrix in various ways. Assume that we have done so. (Alternatively, assume that Impossible Quantification only applies at logically impossible circumstances, and that at all other circumstances, quantifiers are governed by rules like Existential Quantification above.) Now let w be a circumstance at which (10) is true, but at which the extension of the matrix (12) of (11) does not include the pair $\langle \text{‘Hesperus’}, \text{‘Phosphorus’} \rangle$. Then (13) is not true at w . But since (13) is a notational variant of (11), (11) is also not true at w . Thus w is both logically impossible and open. Given circumstances such as w , the proof of Lemma 1 fails. This blocks Soames’s derivation.

References

- Barwise, J., & Perry, J. (1985). Shifting situations and shaken attitudes. *Linguistics and Philosophy*, 8(1), 105–161.
- Bealer, G. (1998). Propositions. *Mind*, 107(425), 1–32.
- Beall, J. C. (2009). *Spandels of truth*. Oxford: Oxford University Press.
- Bjerring, J. C., & Schwarz, W. (2017). Granularity problems. *The Philosophical Quarterly*, 67(266), 22–37.
- Cartwright, R. (1987). *Philosophical essays*. Cambridge, MA: MIT Press.
- Cobrerros, P., Égré, P., Ripley, D., & van Rooij, R. (2013). Reaching transparent truth. *Mind*, 488, 841–866.
- Edelberg, W. (1994). Propositions, circumstances, objects. *Journal of Philosophical Logic*, 23(1), 1–34.
- Elbourne, P. (2010). Why propositions might be sets of truth-supporting circumstances. *Journal of Philosophical Logic*, 39(1), 101–111.
- Frege, G. (1956). The thought. *Mind*, 65, 289–311.
- Georgi, G. (2015). Logic for languages containing referentially promiscuous expressions. *Journal of Philosophical Logic*, 44(4), 429–451.
- Hanks, P. (2015). *Propositional content*. Oxford: Oxford University Press.

- Higginbotham, J. (2006). Sententialism: The thesis that complement clauses refer to themselves. *Philosophical Issues*, 16, 101–119.
- Horwich, P. (1998). *Truth* (2nd ed.). Oxford: Oxford University Press.
- Jago, M. (2015). Hyperintensional propositions. *Synthese*, 192(3), 585–601.
- Jago, M. (2017). Propositions as truthmaker conditions [Special Issue]. *Argumenta*, 2(2), 293–308.
- Kalderon, M. E. (1997). The transparency of truth. *Mind*, 106(423), 475–497.
- Keller, L. (2014). The metaphysics of propositional constituency. *Canadian Journal of Philosophy*, 43(5–6), 655–678.
- King, J. C. (2002). Two sorts of claim about logical form. In G. Preyer & G. Peter (Eds.), *Logical form and language*. New York: Oxford University Press.
- King, J. C. (2007a). *The nature and structure of content*. Oxford: Oxford University Press.
- King, J. C. (2007b). What in the world are the ways things might have been? *Philosophical Studies*, 133, 443–453.
- King, J. C., Soames, S., & Speaks, J. (2014). *New thinking about propositions*. Oxford: Oxford University Press.
- Kripke, S. (1980). *Naming and necessity*. Cambridge, MA: Harvard University Press.
- Lewis, D. (1970). General semantics. *Synthese*, 22(1/2), 18–67.
- Lewis, D. (1981). Index, context, and content. In S. Kanger & S. Ohman (Eds.), *Philosophy and grammar*. Dordrecht: D. Reidel.
- Lewis, D. (1986). *On the plurality of worlds*. Cambridge, MA: Blackwell.
- McGlone, M. (2012). Propositional structure and truth conditions. *Philosophical Studies*, 157(2), 211–225.
- Merricks, T. (2007). *Truth and ontology*. Oxford: Clarendon Press.
- Merricks, T. (2015). *Propositions*. Oxford: Oxford University Press.
- Nolan, D. (1997). Impossible worlds: A modest approach. *Notre Dame Journal of Formal Logic*, 38(4), 535–572.
- Plantinga, A. (1976). Actualism and possible worlds. *Theoria*, 42(1–3), 139–160.
- Priest, G. (2005). *Towards non-being*. Oxford: Clarendon Press.
- Quine, W. V. O. (1951). *Mathematical logic* (revised ed.). Cambridge, MA: Harvard University Press.
- Rabern, B. (2012). Propositions and multiple indexing. *Thought*, 1, 116–124.
- Rabern, B. (2013). Monsters in Kaplan's logic of demonstratives. *Philosophical Studies*, 164, 393–404.
- Richard, M. (2014). What are propositions? *Canadian Journal of Philosophy*, 43(5–6), 702–719.
- Ripley, D. (2012). Structures and circumstances: Twoways to fine-grain propositions. *Synthese*, 189, 97–118.
- Rosefeldt, T. (2008). That'-clauses and non-nominal quantification. *Philosophical Studies*, 137(3), 301–333.
- Soames, S. (1987). Direct reference, propositional attitudes, and semantic content. *Philosophical Topics*, 15, 47–87.
- Soames, S. (1989). Semantics and semantic competence. *Philosophical Perspectives*, 3, 575–596.
- Soames, S. (1999). *Understanding truth*. New York: Oxford University Press.
- Soames, S. (2007). Actually. *Proceedings of the Aristotelian Society, Supplementary Volumes*, 81, 251–277.
- Soames, S. (2008). Truthmakers? *Philosophical Books*, 49(4), 317–327.
- Soames, S. (2010). *What is meaning?*. Princeton: Princeton University Press.
- Soames, S. (2011). True at. *Analysis*, 71(1), 124–133.
- Soames, S. (2015). *Rethinking language, mind, and meaning*. Princeton, NJ: Princeton University Press.
- Stalnaker, R. (1970). Pragmatics. *Synthese*, 22(1/2), 272–289.
- Stalnaker, R. (1976). Possible worlds. *Noûs*, 10(1), 65–75.
- Stalnaker, R. (1984). *Inquiry*. Cambridge: MIT Press.
- Stalnaker, R. (1996). Impossibilities. *Philosophical Topics*, 24, 193–204.
- Stalnaker, R. (2012). *Mere possibilities: Metaphysical foundations of modal semantics*. Princeton, NJ: Princeton University Press.
- Von Fintel, K., & Heim, I. (2007). *Intensional semantics*. Unpublished. <http://tinyurl.com/intensional>
- Williamson, T. (1999). Truthmakers and the converse Barcan formula. *Dialectica*, 53(3–4), 253–270.
- Williamson, T. (2007). *The philosophy of philosophy*. Malden, MA: Blackwell Publishing.
- Williamson, T. (2013). *Modal logic as metaphysics*. Oxford: Oxford University Press.
- Wittgenstein, L. (1922). *Tractatus logico-philosophicus*. London: Kegan Paul, Trench and Trübner.
- Yagisawa, T. (2010). *Worlds and individuals, possible and otherwise*. Oxford: Oxford University Press.
- Yli-Vakkuri, J. (2013). Propositions and compositionality. *Philosophical Perspectives*, 27, 526–563.