

This is a repository copy of *The Prenective View of Propositional Content*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/117774/>

Version: Published Version

---

**Article:**

Trueman, Robert [orcid.org/0000-0002-2908-7985](https://orcid.org/0000-0002-2908-7985) (2018) The Prenective View of Propositional Content. *Synthese*. pp. 1799-1825. ISSN: 0039-7857

<https://doi.org/10.1007/s11229-016-1309-4>

---

**Reuse**

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:

<https://creativecommons.org/licenses/>

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.

# The Prenective View of propositional content

Robert Trueman<sup>1</sup>

Received: 9 August 2016 / Accepted: 23 December 2016

© The Author(s) 2017. This article is published with open access at Springerlink.com

**Abstract** Beliefs have what I will call ‘propositional content’. A belief is always a belief that so-and-so: a belief that grass is green, or a belief that snow is white, or whatever. Other things have propositional content too, such as sentences, judgments and assertions. The Standard View amongst philosophers is that what it is to have a propositional content is to stand in an appropriate relation to a proposition. Moreover, on this view, propositions are objects, i.e. the kind of thing you can refer to with singular terms. For example, on the Standard View, we should parse the sentence ‘Simon believes that Sharon is funny’ as: [Simon] believes [that Sharon is funny]; ‘Simon’ is a term referring to a thinking subject, ‘that Sharon is funny’ is a term referring to a proposition, and ‘x believes y’ is a dyadic predicate expressing the believing relation. In this paper, I argue against the Standard View. This is how I think we should parse ‘Simon believes that Sharon is funny’: [Simon] believes that [Sharon is funny]; here we have a singular term, ‘Simon’, a sentence ‘Sharon is funny’, and a ‘prenective’ joining them together, ‘x believes that p’. On this Prenective View, we do not get at the propositional content of someone’s belief by referring to a reified proposition with a singular term; we simply use the sentence ‘Sharon is funny’ to express that content for ourselves. I argue for the Prenective View in large part by showing that an initially attractive version of the Standard View is actually vulnerable to the same objection that Wittgenstein used against Russell’s multiple-relation theory of judgment.

**Keywords** Propositional content · Propositions · Multiple-relation theory of judgment · Wittgenstein · Russell · Ramsey

---

✉ Robert Trueman  
rob.trueman@york.ac.uk

<sup>1</sup> Department of Philosophy, University of York, York, UK

# 1 Introduction

Beliefs have what I will call *propositional content*. A belief is always a belief *that so-and-so*: a belief *that grass is green*, or a belief *that snow is white*, or whatever. Other things have propositional content too. The most obvious examples are sentences: ‘Grass is green’ *says that grass is green*. In fact, as a rough gloss, we can say that something has a propositional content just in case it has a content that can be expressed by a sentence. This is only a rough gloss, but it is enough to get us started.<sup>1</sup>

The *Standard View* amongst philosophers is that *what it is* for someone to believe something is for them to stand in the *believing* relation to a proposition; for example, what it is for Simon to believe that Sharon is funny is for Simon to stand in the *believing* relation to the proposition that Sharon is funny. Similarly, what it is for a sentence to say something is for it to stand in the *saying* relation to a proposition, what it is for someone to assert something is for them to stand in the *asserting* relation to a proposition, and so on. In its most general form, then, the Standard View is that to have a propositional content is to stand in an appropriate relation to a proposition.

So far, there is nothing to object to. But the Standard View goes further by *reifying* propositions: it treats propositions as objects that can be referred to with singular terms. Take for example the sentence ‘Simon believes that Sharon is funny’. On the Standard View, this sentence should be parsed as follows:

[Simon] believes [that Sharon is funny]

Here we have two singular terms, ‘Simon’ and ‘that Sharon is funny’, and a two-place predicate joining them together, ‘*x* believes *y*’; the idea is that ‘Simon’ refers to a thinking subject, ‘that Sharon is funny’ refers to the proposition that Sharon is funny, and ‘*x* believes *y*’ expresses the *believing* relation that holds between them. The same goes for other sentences that ascribe propositional content, for example:

['Grass is green'] says [that grass is green]<sup>2</sup>

I think it is a mistake to reify propositions in this way. However, I do not want to quibble over terminology, and so I will happily use the word ‘proposition’ for the Standard View’s reified propositions in this paper. I will even grant for the sake of argument that these reified propositions actually exist. My real contention is that even if these propositions exist, it is still a mistake to read ascriptions of propositional content in the way that the Standard View tells us to. Following Prior (1971: ch. 2), this is how I think we should parse ‘Simon believes that Sharon is funny’:

[Simon] believes that [Sharon is funny]

<sup>1</sup> Much of what I will say here has been deeply influenced by Ramsey’s unfinished manuscript *On Truth*. Even my use of ‘propositional content’ is derived from Ramsey, who used ‘propositional reference’ for the same thing; of course, ‘reference’ has since come to have a specific meaning in philosophy, which is why I swapped it for ‘content’.

<sup>2</sup> We could also imagine a *paratactic* version of the Standard View. On this version of the view, ‘Simon believes that Sharon is funny’ is really of the form ‘Simon believes that: Sharon is funny’, where the ‘that’ is a demonstrative referring to the proposition expressed by the sentence displayed after the colon (see Dodd 2000: p. 34). As far as I can tell, the argument I develop against the Standard View in this paper could easily be redirected at this paratactic spin-off.

Now we have the singular term ‘Simon’, the sentence ‘Sharon is funny’, and what is sometimes called a *prenective* joining them together, ‘ $x$  believes that  $p$ ’ (‘ $x$  believes that  $p$ ’ is called a ‘prenective’ because it behaves like a predicate at one end, and a sentential connective at the other: the ‘ $x$ ’ marks an argument place for a singular term, whereas the ‘ $p$ ’ marks an argument place for a sentence).<sup>3</sup> The same goes for other sentences that ascribe propositional content, for example:

[‘Grass is green’] says that [grass is green]

At first sight, the difference between this view, which I will the *Prenective View*, and the Standard View may seem fairly slight. All we have done is move the ‘that’ from inside a box to outside of it! But in fact, this is a difference which runs very deep. On the Prenective View, there is no term referring to a proposition in ‘Simon believes that Sharon is funny’. This sentence does not, then, express a relation between Simon and a reified proposition. Instead of getting at the content of Simon’s belief by referring to a proposition, we simply use the sentence ‘Sharon is funny’ to express that content for ourselves.

I am not going to try to argue for the Prenective View from a standing start. All I really hope to do is convert those philosophers who, up until now, have subscribed to the Standard View. I will explain why I have chosen to start with the Standard View in Sect. 2. Then, in Sect. 3, I will present a simple, and I think fatal, objection to a completely general version of that view: propositions have propositional contents, but it would be incoherent to apply the Standard View to propositions themselves. Now, this initial objection will not pack too much of a punch all by itself, since no one I can think of has ever actually wanted to apply the Standard View to propositions. However, in Sects. 4–7 I will explore two ways in which you might try to restrict the Standard View, and as I will show, they both end up pushing us toward the Prenective alternative. Along the way we will be forced to make a diversion through the history of early analytic philosophy: in Sect. 6 we will take a look at Wittgenstein’s famous objection to Russell’s multiple-relation theory of judgment; as we will see, this objection is the crux of the case against the Standard View. Finally, in Sect. 8, I will fill the Prenective View out a little further.

## 2 Why start from the Standard View?

Why have I chosen to start my argument from the Standard View? Well, in part, just because it is the *standard view*. It was held by some of the historical greats, like Frege (1918) and certain timeslices of Russell (1903), and it is still widely endorsed today.<sup>4</sup> Showing that the Prenective View should be preferred to the Standard View would, then, be something of a coup.

Another reason for starting from the Standard View is that there do seem to be some important points telling in the view’s favour. To begin with, the Standard View

<sup>3</sup> To the best of my knowledge, it was Künne (2003: p. 68) who first coined the word ‘prenective’.

<sup>4</sup> For two very recent books developing various versions of the Standard View, see: King et al. (2014) *New Thinking about Propositions*, and Hanks (2015) *Propositional Content*.

is certainly encouraged by the ways that we actually speak. We not only say things like:

- (1) Simon believes that Sharon is funny

We also say things like:

- (2) That Sharon is funny is what Simon believes

Now, maybe we can all agree that it is not *obviously* true that ‘that Sharon is funny’ appears as a term in (1). But it looks for all the world as if it appears as a term in (2).<sup>5</sup> In fact, it is tempting to read (2) as a statement of identity:

[That Sharon is funny] *is identical to* [what Simon believes]

By contrast, an advocate of the Prenective View would have to find a way of reading (2) without treating ‘that Sharon is funny’ as a term. The obvious suggestion would be:

That [Sharon is funny] is what [Simon] believes

On this reading, (2) is a result of slotting a sentence, ‘Sharon is funny’, and a term, ‘Simon’, into the prenective ‘That  $p$  is what  $x$  believes’. Now, it is by no means impossible to read (2) in this way, but I have to admit that it is somewhat unnatural.

The Standard View also effortlessly handles certain inferences that we are prepared to make, such as the following:

- (3) Simon believes that Sharon is funny  
 (4) Daniel believes that Sharon is funny  
 ∴ (5) There is something that Simon and Daniel both believe

If we read (3) and (4) in accordance with the Standard View, then we can formalise (5) using nothing but the familiar resources of first-order logic:

(5<sub>S</sub>)  $\exists x(\text{Simon believes } x \text{ and Daniel believes } x)$ <sup>6</sup>

But if we want to read (3) and (4) in accordance with the Prenective View, then we will not be able to give (5) this first-order formalisation. Instead, we will have to help ourselves to some higher-order resources:

(5<sub>P</sub>)  $\exists p(\text{Simon believes that } p \text{ and Daniel believes that } p)$

Here the quantifier binds the variable ‘ $p$ ’, which appears in the positions of *sentences*, not singular terms.<sup>7</sup> Defenders of the Standard View tend to take this as a serious point in their favour. And indeed, there really are reasons to be worried about (5<sub>P</sub>).

<sup>5</sup> Künne (2003: p. 69) and King et al. (2014: p. 7) give essentially this example, along with some other related ones.

<sup>6</sup> The Standard View’s ability to handle inferences like (1)–(3) in this simple way is one of the most often repeated reasons for endorsing it. See: Künne (2003: p. 69), King (2007: p. 1; King et al. 2014: p. 7) and Speaks (King et al. 2014: pp. 9–16).

<sup>7</sup> This marks an important difference between the Prenective View and a related suggestion made by Quine (1960: p. 216). According to Quine, we should read ‘ $x$  believes that  $p$ ’ as an operator which turns a sentence, e.g. ‘Sharon is funny’, into a monadic predicate, ‘ $x$  believes that Sharon is funny’. So far, this sounds exactly like the Prenective View, and in fact, Prior (1971: p. 20) explicitly claimed that there was no

First off, there is a tradition of philosophers who think that higher-order quantification in general is incoherent; although that tradition thankfully seems to be dying off. Second,  $(5_P)$  not only involves higher-order quantification, but higher-order quantification *into intensional contexts*. By contrast, the quantification in  $(5_S)$  is purely extensional, although it is extensional quantification over entities (propositions) that are individuated intensionally.

In light of these points, it is easy to see why the Standard View became the standard view, and why the Prenective View barely got a look in. However, things are not quite so simple. As we will see in the next section, the Standard View comes undone when we consider the propositional contents of *propositions* themselves.

### 3 The contents of propositions

Consider the following two theses:

- (1) Propositions have propositional contents
- (2) The Standard View should be applied to everything that has a propositional content

(1) seems fairly incontrovertible, or at least it does when we bear in mind that by ‘proposition’ we mean the Standard View’s *reified* propositions. If propositions are objects then they must surely be *truth-apt* objects, and there is a platitudinous relationship between propositional content and truth-aptitude:  $x$  is true just in case things are as  $x$  *says* that they are. Moreover, it seems natural to say that what makes propositions special is the fact that they not only have propositional contents, but have them *necessarily*.

However, when we combine (1) with (2), we end up with an absolutely absurd picture. According to that picture, what it is for the proposition that Sharon is funny to say that Sharon is funny, is for it to stand in a relation to a proposition. Or to put this at the linguistic level, ‘The proposition that Sharon is funny says that Sharon is funny’ should be parsed as:

[The proposition that Sharon is funny] says [that Sharon is funny]

where ‘that Sharon is funny’ is a term referring to a proposition. Which proposition? There seems to be only one answer to give: the proposition that Sharon is funny. So we could perspicuously re-write the above sentence as:

[The proposition that Sharon is funny] says [the proposition that Sharon is funny]

But how could a proposition possibly say something about Sharon simply by standing in a relation to itself? Wouldn’t it need to stand in a relation to *Sharon* to do that?

---

Footnote 7 continued

difference between the two. But this was a misleading thing to claim, given the wider context of Quine’s beliefs. According to [Quine \(1970: pp. 66–68\)](#), the higher-order quantification involved in  $(5_P)$  is illegitimate: all quantification is first-order quantification. However, a key component of the Prenective View as I understand it, and as [Prior](#) himself laid it out ([1971: ch. 3](#)), is the idea that there is nothing wrong with quantifying into sentence position. Without this kind of higher-order quantification, it would be very difficult to know how to formalise arguments like (3)–(5).

Now, this picture may not yet strike you as absurd. You might try to defend it by pointing out that nothing in this picture requires that the proposition that Sharon is funny be a featureless point. We are free to add all sorts of internal relations between this proposition and Sharon, or funniness, or anything else we like. With these additional relations in place, it surely becomes harmless to say that the proposition that Sharon is funny says what it does by virtue of standing in a relation to itself: standing in a relation to the proposition that Sharon is funny is a way of standing in an indirect relation to Sharon. But really, this is no defence. Clearly, it is not the relation between the proposition that Sharon is funny and *itself* which accounts for its saying that Sharon is funny, but the additional internal relations between this proposition, Sharon and whatever else. To claim otherwise would be as bizarre as claiming that what it is for Simon to be a sibling of Daniel is for Simon to stand in a relation to himself, and then defending this claim by pointing out that being related to Simon is a way of being indirectly related to his sibling Daniel.

Let it be agreed, then, that it is incoherent to combine (1) and (2). So if we want to hold onto (1), we cannot maintain the Standard View in complete generality: any satisfactory version of the Standard View must be a restricted version, applying to sentences, beliefs and so on, but not to propositions themselves. Of course, at this point a staunch advocate of the Standard View might prefer to reassess the status of (1). They might even accuse (1) of being a crude conceptual mistake: propositions do not *have* propositional contents, they *are* propositional contents. Now, I actually think that this accusation gets at something important, but what I think it gets at is that it was a mistake to reify propositions in the first place (see Sect. 8). Clearly, however, that is not what an advocate of the Standard View, which is entirely built upon the reification of propositions, could mean by that accusation. All I think *they* could mean is: propositions do not have propositional contents *on the Standard View's model* of propositional content. Nonetheless, there surely is a more neutral notion of *propositional content*, platitudinously related to the notion of *truth-aptness*, which is correctly applied to propositions on the Standard View: that view plainly requires that propositions be truth-apt, and nothing can be true or false unless it in some sense *says* something.<sup>8</sup>

So, an advocate of the Standard View has no choice but to restrict it, and offer a different account of the propositional contents of propositions. My aim now is to make a case for the following claim: any acceptable theory of the contents of propositions will be a version of my Prenective View, and once we accept the Prenective View for propositions, we should accept it across the board for everything that has a propositional content. Of course, it would be quite impossible to make a *definitive* case for such a claim: there will always be more options to be dreamt up than can be considered in any one paper. But we can make a compelling start.

<sup>8</sup> Most advocates of the Standard View actually *insist* that propositions are representational in this way, and that we offer an account of this fact. For example, see: [King et al. \(2014\)](#) and [Hanks \(2015\)](#).

## 4 A truth-conditional approach

If we are not to apply the Standard View to propositions, what account should we offer of their contents? Well, earlier I emphasised the platitudinous relation between having a propositional content and having a truth-condition. It would be natural, then, to suggest that *what it is* for a proposition to have the content it has is simply for it to have the truth-condition it has. So for example, when we say:

(1) The proposition that Sharon is funny says that Sharon is funny

all we really mean is:

(2) Necessarily, the proposition that Sharon is funny is true iff Sharon is funny

This is certainly a tempting way to think about the propositional contents of propositions (it fits particularly well with a conception of propositions as sets of possible worlds). But crucially, it is just a version of the Prenective View, applied to propositions. We can display the way that (2) breaks down as follows:

Necessarily, [the proposition that Sharon is funny] is true iff [Sharon is funny]

Here we have a name of a proposition, ‘the proposition that Sharon is funny’, a sentence expressing the content of that proposition, ‘Sharon is funny’, and a prenective connecting the two, ‘Necessarily,  $x$  is true iff  $p$ ’.

So if we accept of the propositional contents of propositions in this truth-conditional way, then we will be subscribing to the Prenective View of the contents of propositions. And now I would like to ask, pointedly: Once we have accepted the Prenective View for propositions, why wouldn’t we want to accept it across the board? We can bring out the force of this question with the following two considerations.

The first point is the obvious one. On the face of it, propositional content appears to be a unified phenomenon. That propositions have propositional contents is something they have in common with sentences, beliefs, etc. Now obviously, there are differences between these cases. For example, propositions have their contents necessarily and sentences do not, and this difference will certainly force us to complicate the story when we deal with sentences. But still, it seems like the story for sentences should just be a complicated version of the story for propositions. Otherwise, we are merely punning when we say that a sentence and proposition both have a ‘propositional content’.

Of course, this sort of consideration is hardly conclusive, and so we come to the second, and I would say much more important, point. If we tried combining a Prenective View of the contents of propositions with a Standard View of the contents of (say) sentences, then propositions would become an idle wheel in this account.<sup>9</sup> ‘Sharon is funny’ gets its content by standing in a relation to the proposition that Sharon is funny. But standing in this relation to this proposition only bestows ‘Sharon is funny’ with content because the proposition has its *own* content, and its having that content is properly understood on the Prenective model. Why bother, then, having the proposition that Sharon is funny act as an intermediary for the content of ‘Sharon is funny’?

<sup>9</sup> I emphasise *in this account*, i.e. in the account of what it is for a sentence to have propositional content. Propositions are meant to play a lot of roles, and I will not try to show in this paper that we could do without them in general.



Why do we need this middle-man proposition to pass its Prenective content on to the sentence? It seems far simpler to apply the Prenective View directly to the sentence ‘Sharon is funny’ (and to the belief that Sharon is funny, and so on).

What about the points which spoke in favour of the Standard View, and against the Prenective View, in Sect. 2? The important thing to note is that whatever force these points have when applied to the contents of ordinary things, like sentences and beliefs, they have exactly the same force when they are applied to the contents of propositions. So to begin with, we certainly speak in ways which encourage us to apply the Standard View to propositions. We not only say things like:

(3) The proposition that Sharon is funny says that Sharon is funny

We also say things like this:

(4) That Sharon is funny is what the proposition that Sharon is funny says

We are also happy to quantify over the contents of propositions. Consider, for example, the following criteria of individuation for propositions:

(5) Proposition  $a$  = proposition  $b$  iff  $a$  and  $b$  say the same thing

If we adopt the Standard View for propositions then we can give (5) a straightforward, first-order formalisation. But if we adopt the Prenective View for propositions, then we will have to give it a higher-order formalisation:

(5<sub>P</sub>) Proposition  $a$  = proposition  $b$  iff  $\exists p(a \text{ says that } p \text{ and } b \text{ says that } p)$

Now, we are currently imagining that the advocate of the Standard View has accepted the Prenective View for the special case of propositions. If she has, then she will have to deny that the above points speak against the Prenective View in this case: there is nothing wrong with denying that ‘that Sharon is funny’ is a term in (4), or with formalising (5) as (5<sub>P</sub>). But in that case, she can hardly complain if a more thoroughgoing advocate of the Prenective View, who applies it to everything with a propositional content, denies that these points *ever* speak against the view.

I think that all of the above is enough to uncover just how unnatural it would be to maintain the Prenective View for propositions but the Standard View for everything else (this intermediate conclusion will be appealed to again in Sect. 7). So, if we were to offer the sort of truth-conditional account of the contents of propositions that was outlined at the top of this section, which is an instance of the Prenective View, then we should endorse the Prenective View in its fully general form.

## 5 The constituents of propositions

Many philosophers today think that propositions are *structured* entities; propositions are in some sense ‘built’ out of their *constituents*. This immediately suggests an alternative way of accounting for the propositional contents of propositions: what it is for a proposition to have the content it has is for it to be built out of its constituents in the way that it is.

The first thing to ask here is: What exactly are the constituents of propositions? As everybody knows, there are two broad answers to this question: *Russellianism* and *Fregeanism*. According to Russellianism, the constituents of a proposition are the things that the proposition is about; for example, the constituents of the proposition that Sharon is funny are Sharon and the property funniness. According to Fregeanism, on the other hand, propositions are not built out of the things that they are about, but out of entities which somehow go proxy for those things. For Frege himself (1893: §32, 1923: p. 390), these proxy objects were his senses, and thus he held that the proposition that Sharon is funny is built out of the sense of ‘Sharon’ and the sense of ‘*x* is funny’.

In what follows I will focus on the Russellian conception of propositions, and leave the Fregean alternative to one side. Propositions make claims about things in the world, and so it seems to me that any account of the content of a proposition must somehow relate that proposition to the things it is about. Of course, a Fregean could try to secure this relation by accounting for the content of a proposition in terms of the things that its constituents *stand for*; but this would just be to incorporate a Russellian account of the proposition’s *content* into a Fregean account of its *constituents*. It would, then, be a fairly simple matter to rework everything I say about Russellianism so that it applies to this kind of Fregeanism.

The second thing to ask here is: How exactly are propositions ‘built’ out of their constituents? That is a difficult question, but happily, we do not need to answer it here. Everything I want to say about structured propositions can be said at a high level of abstraction, without filling in the details of how propositions are really built. However, if you are at all worried that this sort of abstraction is dangerous, please see the “Appendix”, in which I connect my discussion to some contemporary views about what structured propositions really are.

Now, for what it is worth, I do think that propositions must be structured entities (or at least they must be if they exist), and that it must be possible to account for their contents in terms of their constituents. However, this way of thinking about propositions is open to a powerful objection. And although it can be defended from this objection, this comes at the price of transforming it into a version of the Pre-nec-tive View for propositions. This ‘powerful objection’ is in fact just a re-application of Wittgenstein’s criticism of Russell’s multiple-relation theory of judgment, and so I will spend the next section presenting Wittgenstein’s criticism in its original context.

## 6 Wittgenstein’s objection

The literature on Russell’s multiple-relation theory of judgment and Wittgenstein’s objection to it has become unsurveyably large, and so I will not try to survey it. Nor will I even try very hard to argue for the historical accuracy of my interpretation of their disagreement; my main concern will just be to present my interpretation. For my purposes, historical accuracy does not really matter, so long as Wittgenstein’s objection *as I understand it* is telling against Russell’s theory *as I understand it*.

## 6.1 Russell's multiple-relation theory of judgment

In *The Principles of Mathematics* (1903), Russell proposed what he called a 'dual-relation theory of judgment'. In our terminology, this theory was a version of the Standard View applied to judgments: according to this theory, judgment consists in a relation between a judging subject and a proposition; so for example, my judging that Socrates is different from Plato consists in a relation between me and the proposition that Socrates is different from Plato. At this time, Russell (1903: §51) thought that propositions were structured entities built out of the things they were about; so the proposition that Socrates is different from Plato is built out of Socrates, Plato and difference. Moreover, this proposition is no mere collection of these things, but has a special kind of unity. According to Russell (1903: §54), it is the relation of difference which provides this unity: in the proposition that Socrates is different from Plato, the relation of difference actually relates Socrates and Plato.

Russell (1910: pp. 150–153, 1913: pp. 109–110 & 116–117) eventually became dissatisfied with this dual-relation theory, chiefly because it seems unable to make sense of false judgments. Take Othello's judgment that Desdemona loves Cassio. According to the dual-relation theory, this judgment would consist in a relation between Othello and the proposition that Desdemona loves Cassio. And according to Russell's theory of propositions, the proposition that Desdemona loves Cassio exists only if the relation of loving actually relates Desdemona to Cassio. But surely saying that the relation of loving actually relates Desdemona to Cassio is just a complicated way of saying that Desdemona loves Cassio. Now, as it happens, Desdemona does not love Cassio. So according to Russell's view, there can be no such thing as the proposition that Desdemona loves Cassio, and so Othello cannot judge that Desdemona loves Cassio.

This problem with false judgment led Russell (1910: pp. 153–156) to abandon his dual-relation theory in favour of a 'multiple-relation' theory of judgment. According to this new theory, a judgment does not consist in a dual (i.e. two-place) relation between a subject and a proposition, but in a multiple (i.e. many-place) relation between a subject and the things that the judgment is about. So to return to the earlier example, Othello's judgment that Desdemona loves Cassio does not consist in a relation between Othello and a proposition, but in a relation between Othello, Desdemona, Cassio and the relation of loving. Thus Othello's judgment really has the following form:

(1) Judges(Othello, Desdemona, Cassio, love)

This was not the final version of Russell's multiple-relation theory. He later (1913: 116) included logical forms as elements in the judging relation, but we will come back to that in a moment.

## 6.2 The problem of nonsensical judgments

Wittgenstein formulated his objection to Russell's multiple-relation theory in different ways in different places. This is how he put it in the *Tractatus*:

The correct explanation of the form of proposition, ‘A makes the judgment  $p$ ’, must show that it is impossible for a judgment to be a piece of nonsense. (Russell’s theory does not satisfy this requirement.) (Wittgenstein 1922: p. 5.5422)

On Russell’s multiple-relation theory, the relation of loving does not have a special position in the judgment that Desdemona loves Cassio; it is just another element in the judging relation, on the same level as the individuals Desdemona and Cassio. But in that case, we should be able to substitute any other individual we like for love. That is, nothing in Russell’s theory of judgment rules out the following:

(2) Judges(Othello, Desdemona, Cassio, Iago)

But (2) ascribes a nonsensical judgment to Othello, namely the judgment that Desdemona Iagos Cassio.

Now, a natural question to ask at this point is: In what sense does Russell’s theory need to ‘rule out’ a judgment like (2)? I will return to this question in Sect. 6.3, but first I want to briefly consider the idea of nipping Wittgenstein’s objection in the bud by simply denying that (2) ascribes a nonsensical judgment to Othello. Certainly, it would be nonsensical for Othello to judge that Desdemona Iagos Cassio, but why think that is the judgment (2) ascribes? Could we not instead think of (2) as ascribing to Othello the judgment that Desdemona and Cassio *are related by* Iago? This judgment certainly couldn’t be true, since individuals can only be related by *relations*, and Iago is an individual, not a relation. But it is still a meaningful judgment nonetheless, just an obviously false one.

However, if this is how we understand (2), then we must accordingly modify our understanding of (1): the judgment (1) represents is *not* Othello’s judgment that Desdemona loves Cassio, but his judgment that Desdemona and Cassio are related by love. And now it is clear that there is a missing element in (1): Othello’s judgment does not merely consist in a relation to Desdemona, Cassio and love, but also to an instantiation-relation, *x and y are related by R*, or  $xRy$  for short. When we add this extra term to (1), what we end up with is in effect Russell’s 1913 version of his theory, which includes logical forms in the judging relation:

(1′) Judges(Othello, Desdemona, Cassio, love,  $xRy$ )

But again,  $xRy$  is just another element in the judging relation, and so what is to stop us from substituting an individual for that form? If we do, we will once again end up with a nonsensical judgment, such as:

(2′) Judges(Othello, Desdemona, Cassio, love, Iago)

Of course, at this point it is very tempting to insist that (2′) *will be* ‘ruled out’ (whatever exactly that means).  $xRy$  may be one of the *relata* in (1′), but it is not like the others: it is a *form*, whereas the others are *individuals*. As a result, we are not free to substitute Iago for  $xRy$ , since Iago is the wrong type of thing to be substituted for a form. However, if this way of ruling (2′) out is acceptable, then (2) could have been ruled out in a similar way, without introducing forms at all. We could have said that although the relation of loving is one of the *relata* in (1), it is not like the others: it is a *relation*, whereas the others are *individuals*. For our purposes, then, we can simply leave forms out of the account, and focus on (1) and (2) rather than (1′) and (2′).

The question before us, then, is whether Russell could defend his 1910 version of the multiple-relation theory (i.e. the one which does not include forms) from Wittgenstein's objection by insisting that there is a type-restriction on the final argument place of the judging relation in (1): that argument place can only be filled by *relations*, not *individuals*. The answer is, I think, that he could not, but before we can see why, we need to get clearer on the sense in which nonsensical judgments are 'impossible'.

### 6.3 The expressive impossibility of nonsensical judgments

Ordinarily, the claim that it is impossible to do something is equivalent to the claim that it is necessarily false to say that someone has done it. If this were the sense in which Wittgenstein intended his claim that it is impossible to judge nonsense, then it would have amounted to the claim that it is always necessarily false to ascribe a nonsensical judgment to someone. The objection to Russell's multiple-relation theory would then be that nothing in his theory 'rules out' nonsensical judgments in the sense that the theory does not entail that ascriptions of nonsensical judgments, such as (2), are necessarily false.

This is, I think, a natural way of trying to understand Wittgenstein's objection. But as natural as it may be, I also think that it is fundamentally mistaken. Wittgenstein's point was not that any ascription of a nonsensical judgment would have to be necessarily false. It was that we cannot really ascribe a nonsensical judgment to someone at all: if we tried to, then we would end up saying something nonsensical *ourselves*. (This is the point of Wittgenstein's (1922: p. 5.5422) insistence that a theory of judgment should *show* that it is impossible to judge nonsense, backed up with the full weight of the Tractarian distinction between saying and showing.)<sup>10</sup> To avoid confusion, we will say that Wittgenstein thought that it was *expressively impossible* to judge nonsense.

What could compel us to make the strong claim that it is expressively impossible to judge nonsense? Well, as a starting point, we obviously cannot ascribe a nonsensical judgment to someone by using the form of words 'A judges that *p*'. As Potter observes,

if I say 'A judges that *p*', I do not, of course, myself judge that *p*, but I do, in the course of saying it, have to express what it is that A is judging (namely that *p*). (Potter 2009: p. 130)

This is, of course, just a consequence of the fact that the '*p*' in 'A judges that *p*' is *used*, and not merely mentioned. Thus, any attempt to substitute a piece of nonsense for '*p*' will just result in a longer piece of nonsense. For example, suppose I attempt to ascribe a nonsensical judgment to Othello by saying 'Othello judges that Desdemona Iagos Cassio'. My attempt founders on the fact that 'Othello judges that Desdemona Iagos Cassio' is *itself* ungrammatical nonsense, and thus says nothing, let alone that Othello made a nonsensical judgment.

But by itself, this simple observation is not quite enough to show that it is expressively impossible to judge nonsense. All it shows is that we cannot ascribe a nonsensical judgment by saying something of the form 'A judges that *p*'. It may yet be that there

<sup>10</sup> Potter (2009: pp. 126–128) makes exactly this point.

are other ways. Indeed, we could even try making it a *virtue* of Russell's theory that it expands our ordinary expressive repertoire, allowing us to construct sentences like (2) and thereby ascribe nonsensical judgments to people.

However, it seems to me that Potter's observation can be further generalised. When you ascribe a judgment to someone, you are doing your best to see the world (at least partly) from their point of view: you are considering how the world seems to them, perhaps even as a prelude to deciding on whether or not to agree with them that this is how the world is. Now, this 'how the world seems' is the propositional content of the judgment you are ascribing. On the face of it, this suggests that it must be possible to read the propositional content of a judgment off from an ascription of that judgment. Otherwise, ascribing judgments to people would not be a way of trying to see the world from their points of view. (This requirement is trivially satisfied by 'Othello judges that Desdemona loves Cassio', but it appears to be satisfied by (1) too.)

In reality, this is a little bit too strong. If I say 'Daniel judges everything that Simon judges', I ascribe many judgments to Daniel, but it is impossible to read the content of any of those judgments off that ascription. Call these sort of judgment-ascriptions *indirect*, as opposed to *direct* ascriptions which do conform to the above requirement (i.e. a judgment-ascription is *direct* iff it is possible to read the propositional content of the ascribed judgment off that ascription). More carefully put, what I want to say is that if a judgment can be ascribed at all, then it can be ascribed *directly*.<sup>11</sup> This should not be taken to imply that we could do without indirect ascriptions. By saying 'Daniel judges everything that Simon judges', I can ascribe many (perhaps even infinitely many) judgments to Daniel all at once, even if I do not know which judgments they are. Nonetheless, it seems right to say that there is no individual judgment which inherently resists direct ascription. Rather, indirect ascriptions have a place in our practice of ascribing judgments only because of the way they relate back to direct ascriptions, for example: Daniel judges everything that Simon judges; thus if Simon judges that Sharon is funny, then so does Daniel.

This, then, is the generalisation of Potter's observation: any judgment that can be ascribed can be *directly* ascribed. From here it follows straightforwardly that it is expressively impossible to judge nonsense. If we tried to ascribe a nonsensical judgment to someone, it would be quite impossible to read off the propositional content of that judgment from that ascription. The closest we could come would itself be nonsensical, something like: this is a judgment that Desdemona Iagos Cassio. It is not possible, then, to *directly* ascribe a nonsensical judgment, and thus it is not possible at all. Any attempt to ascribe a nonsensical judgment to someone must therefore misfire, not in the mere sense of being false, since a false ascription is still an ascription, but in the more profound sense of not even ascribing a judgment at all.

We can now see the sense in which Russell needs to 'rule out' nonsensical judgments. It is not enough that (2) be declared false, or even *necessarily* false. If Russell granted that (2) were so much as meaningful, he would be granting that it is expressively possible to judge nonsense: whether or not (2) were true, it would still ascribe a

<sup>11</sup> Obviously, the 'can' here must be a very broad one, since it is sometimes right to say: *S* judges something which I do not have the words to express.

nonsensical judgment to Othello. Russell must, then, rule out (2) as a piece of nonsense on a par with ‘Othello judges that Desdemona Iagos Cassio’ itself.

## 6.4 Two types of type-restriction

We now know the sense in which nonsensical judgments are ‘impossible’—they are expressively impossible—and thus the sense in which they should be ‘ruled out’—supposed ascriptions of nonsensical judgments, such as (2), must be declared nonsensical. With this in mind, we can return to the question we posed at the end of Sect. 6.2: could Russell defend his multiple-relation theory of judgment by imposing type-restrictions on the arguments of the judging relation?

To answer this question, we need to distinguish two broad ways in which we might understand the theory of types. On the first, the theory of types is primarily *ontological*; it is in the first place a theory about types of entities and the ways in which they can be combined into complexes. If this is how we understand type-theory, then a type-restriction on the admissible arguments to the judging relation would take the form of a principle telling us which types of entity can be coherently slotted into the argument places of the judging relation. To a first approximation, the principle would look something like this:

- (3) Judges( $S, a, b, R$ )  $\rightarrow$  ( $a$  is an individual &  $b$  is an individual &  $R$  is a dyadic relation of individuals)

Now, since Iago is an individual, not a relation, (3) is enough to guarantee that (2) is not true. But as we saw, what we need is a guarantee that (2) is nonsensical, and (3) goes no way towards guaranteeing that. Indeed, the very application of (3) to (2) *presupposes* that (2) is meaningful. If it were not, then the following instance of (3) would not be meaningful either:

- (3') Judges(Othello, Desdemona, Cassio, Iago)  $\rightarrow$  (Desdemona is an individual & Cassio is an individual & Iago is a dyadic relation of individuals)

So if this ontological type-restriction has anything to say about (2) at all, it is merely that (2) is false; but the result we really need is that (2) is *nonsensical*.<sup>12</sup>

Things are quite different on the second way of understanding the theory of types. On this alternative conception, the theory of types is primarily *symbolic*; it is in the first place a theory about types of symbols and the ways in which they can be combined into meaningful sentences. Taken in this way, the claim that there are type-restrictions on the admissible arguments to the judging relation is a claim about what sorts of

<sup>12</sup> I suspect that this is what Wittgenstein was getting at when he wrote: ‘I believe it is obvious that, from the proposition “A judges that (say)  $a$  is in a relation  $R$  to  $B$ ”, if correctly analysed, the proposition “ $aRb \vee \neg aRb$ ” must follow directly *without the use of any other premiss*’ (letter to Russell dated June 1913, reprinted in Wittgenstein 1995: p. 29). Griffin (1985: pp. 242–243) offers a different interpretation of this remark: for Russell, the type that an entity belongs to is meant to be determined by the judgments that can be made about it; but a principle like (3) reverses this order, and uses the types of entities to determine which judgments about them are possible. It is worth noting that even if Griffin’s objection does carry weight against an ontological type-restriction like (3), it has nothing to say against the sort of *symbolic* type-restriction discussed below. See (Hanks 2007: pp. 129–132) for a useful discussion on this point.



*symbols* can be substituted for the variables in the *symbol* ‘ $\text{Judges}(S, a, b, R)$ ’. To say in this sense that the final argument place in the judging relation is restricted to dyadic relations is to say that only dyadic *predicates* can be substituted for ‘ $R$ ’ in ‘ $\text{Judges}(S, a, b, R)$ ’; similarly, to say that the other argument places are restricted to individuals is to say that only singular terms can replace ‘ $S$ ’, ‘ $a$ ’ and ‘ $b$ ’.

This symbolic type-restriction is enough to guarantee that (2) is nonsensical: ‘Iago’ is a singular term, not a predicate, and so (2) is ill-formed. More generally, an instance of ‘ $\text{Judges}(S, a, b, R)$ ’ will be well-formed only when the corresponding instance of ‘ $aRb$ ’ is well-formed too. It is thus this symbolic variety of type-restriction, not the ontological variety, that Russell needs if he is to save his multiple-relation theory.

## 6.5 The collapse of Russell’s multiple-relation theory

So if Russell had wanted to respond to Wittgenstein’s objection by appealing to type-restrictions, he would have had to understand those restrictions symbolically. In particular, Russell would have had to insist that only dyadic predicates can be substituted for ‘ $R$ ’ in the symbol ‘ $\text{Judges}(S, a, b, R)$ ’. It is important to be clear on exactly what such an insistence would amount to. Whether an expression counts as a dyadic predicate is not a mere matter of typography: it is not the case that some ink marks just have the right shape to be dyadic predicates. Rather, to be a dyadic predicate is to have a certain kind of linguistic function. (Of course, when we are setting up a formal language we may at the start say, ‘These ink marks are the predicates’, but in doing so we are anticipating the sort of use to which these ink marks will be put.) So, to say that only dyadic predicates can be substituted for ‘ $R$ ’ in ‘ $\text{Judges}(S, a, b, R)$ ’ is to say that only expressions that behave in a particular kind of way can be substituted for ‘ $R$ ’.<sup>13</sup>

It is by no means easy to say exactly what kind of function dyadic predicates have, but I take the following to be truistic: part of what it is to have the function of a dyadic predicate is to have two argument places that must be filled or otherwise bound in a complete sentence. So if ‘love’ appears in

(1)  $\text{Judges}(\text{Othello}, \text{Desdemona}, \text{Cassio}, \text{love})$

as a dyadic predicate, which it now must if (1) is to be a well-formed sentence, then it must have two argument places that are somehow filled or bound. As far as I can tell, there is only one sensible way of filling or binding these argument places here: the first should be filled with ‘Desdemona’, and the second should be filled with ‘Cassio’. (1) must somehow capture the fact that Othello is attributing the relation of love to Desdemona and Cassio (in that order). And if ‘love’ appears in (1) as a dyadic predicate, then the way to capture this fact is by writing ‘Desdemona’ and ‘Cassio’ into its argument places. However, if this is how we read (1), then we must admit that its formulation is a bit misleading: it gives no hint that ‘Desdemona’ and ‘Cassio’

<sup>13</sup> I think that this was the point of Wittgenstein’s cryptic remark, ‘You cannot prescribe to a symbol what it *may* be used to express. All that a symbol *can* express, it *may* express’ (letter to Russell dated 19 August 1919, reprinted in Wittgenstein 1995: p. 125). See Potter’s (2009: pp. 82–85) for a helpful discussion of this remark.



really occur in the argument places of ‘love’. It would be more perspicuous, then, to write (1) as:

(4) Judges(Othello, Desdemona loves Cassio)

But for Russell, to recast the multiple-relation theory in this way would be to collapse it back into the dual-relation theory, and thereby re-open the problem of false judgment.<sup>14</sup> He would have read (4) as saying that a dual-relation holds between Othello and Desdemona’s loving Cassio—between Othello and a complex consisting of Desdemona and Cassio related by the relation of loving. Now, I think that it would be a mistake to read (4) in this way; indeed, the whole point of the Prenective View is that we do not need to read sentences like (4) as expressing relations between judgers and propositions. (So in my opinion, a version of the multiple-relation theory can survive Wittgenstein’s objection, it’s just that it is also a version of the Prenective View.) But that Russell would have seen (4) as a return to the dual-relation theory is supported by the following passage from his 1918 lectures ‘The philosophy of logical atomism’:

Suppose I take ‘*A* believes that *B* loves *C*’. ‘Othello believes that Desdemona loves Cassio’. There you have a false belief. You have this odd state of affairs that the verb ‘loves’ occurs in that proposition and seems to occur as relating Desdemona and Cassio whereas in fact it does not do so, but yet it does occur as a verb, it does occur in the sort of way that a verb should. I mean that when *A* believes that *B* loves *C*, you have to put a verb in the place where ‘loves’ occurs. You cannot put a substantive in its place. Therefore, it is clear that the subordinate verb (i.e. the verb other than the believing) is functioning as a verb, and seems to be relating two terms, but as a matter of fact does not when a judgment happens to be false. That is what constitutes the puzzle about the nature of belief. You will notice that wherever one gets to really close quarters with the theory of error one has the puzzle of how to deal with error without assuming the existence of the non-existent. I mean that every theory of error sooner or later wrecks itself by assuming the existence of the non-existent. As when I say ‘Desdemona loves Cassio’, it seems as if you have a non-existent love between Desdemona and Cassio, but that is just as wrong as a non-existent unicorn. (Russell 1918: p. 225)

<sup>14</sup> It might be suggested that we could avoid this collapse by following a suggestion of Ramsey’s (1927: p. 145), and reading (1) as an abbreviation for: there is a term in Othello’s mental language which stands for Desdemona, ‘*a*’, a term which stands for Cassio, ‘*b*’, and a predicate which says of a pair of objects that the first loves the second, ‘*R*(*x*, *y*)’, and ‘*R*(*a*, *b*)’ is in Othello’s mental *belief-box*. On the face of it, this appears to give us a way of reading ‘love’ in (1) as a dyadic predicate *without* filling its argument places with ‘Desdemona’ and ‘Cassio’. However, this appearance is misleading. Saying that ‘*R*(*a*, *b*)’ is in Othello’s belief-box only ascribes a judgment to Othello if we say something about how the meaning of ‘*R*(*a*, *b*)’ is determined by the meanings of its parts. Of course, we know what we should say: if ‘*a*’ stands for Desdemona, ‘*b*’ stands for Cassio and ‘*R*(*x*, *y*)’ says of a pair of objects that the first loves the second, then ‘*R*(*a*, *b*)’ says that Desdemona loves Cassio. But in that case, the fully unabridged version of (1) becomes: there is a term in Othello’s mental language which stands for Desdemona, ‘*a*’, a term which stands for Cassio, ‘*b*’, and a predicate which says of a pair of objects that the first loves the second, ‘*R*(*x*, *y*)’, and ‘*R*(*a*, *b*)’, which combines these terms and this predicate in such a way as to say that Desdemona loves Cassio, is in Othello’s belief-box. This is just a very complicated version of (4). (To be clear, I do not think that this was something Ramsey himself was confused about.)

Of course, it has to be mentioned that Russell (1918: pp. 226–227) hoped to find a way of resisting this train of thought. Nonetheless, he plainly saw a considerable tension between his multiple-relation theory of judgment and the insight that ‘loves’ must appear as a predicate (or in Russell’s words: a verb) in any acceptable analysis of ‘Othello judges that Desdemona loves Cassio’.

## 7 Back to the constituents of propositions

What does all of this have to do with the idea that what it is for a proposition to have the content it has is for it to be built out of its constituents in the way that it is? Well, that idea is just a version of the multiple-relation theory, but applied to the contents of propositions, rather than judgments: it is the idea that a proposition has the content it has by virtue of standing in a *multiple-relation* to its various constituents. This idea is thus vulnerable to Wittgenstein’s objection. In the end, it can be defended from that objection, but only at the cost of transforming it into a version of the Prenective View for propositions.

The aim of this section is to work through the above line of thought in more detail (although I will still go quite quickly, since it is just a matter of reapplying the argument from Sect. 6). As I said before, I do not want to get caught up in the question of how exactly propositions are meant to be ‘built’ out of their constituents. Just let  $R$  be whatever relation is meant to hold between a proposition and its constituents. (Again, if this abstraction makes you uneasy, please see the “Appendix”.) The idea under consideration is that what it is for a proposition,  $a$ , to say that Sharon is funny is for it to stand in the following *multiple-relation* to Sharon and funniness:

- (1)  $R(a, \text{Sharon, funniness})$

Now, the property of funniness does not play a special role in (1); it is just another element in the relation, on the same level as the individual Sharon. But in that case, we should be able to substitute any other individual we like for funniness. That is, nothing in this multiple-relation theory rules out a proposition whose content is given as follows:

- (2)  $R(a, \text{Sharon, Daniel})$

But  $a$  would be the nonsensical proposition that Sharon Daniels, and nonsensical propositions are impossible. So we must rule (2) out somehow, or at least we must when  $a$  is a proposition.

We might try to rule (2) out by including the following principle in our theory of propositions:

- (3)  $(a \text{ is a proposition} \ \& \ R(a, b, F)) \rightarrow (b \text{ is an individual} \ \& \ F \text{ is a monadic property of individuals})$

Daniel is an individual, not a monadic property of individuals, and so (3) is enough to guarantee that if  $a$  is a proposition then (2) is false. But this is not the sense in which (2) needs to be ‘ruled out’, as I will now explain.

Nonsensical propositions are ‘impossible’ in exactly the same *expressive* sense as nonsensical judgments: if we tried to ascribe a nonsensical content to a proposition,

we would end up saying something nonsensical ourselves. The point of ascribing a propositional content to a proposition is to articulate how the world would have to be for the proposition to be true, perhaps even as a prelude to deciding whether or not this is how the world is. Now, this ‘how the world would have to be’ is just the propositional content being ascribed. So following the same argumentative route we took with judgments, we are led to the conclusion that any propositional content that can be ascribed to a proposition can be *directly* ascribed to a proposition. (An ascription of propositional content to a proposition is *direct* iff it is possible to read the ascribed propositional content off that ascription.) And from here it straightforwardly follows that nonsensical propositions are expressively impossible. If we tried to ascribe a nonsensical content to a proposition, it would be quite impossible to read off from that ascription what the proposition would say if the ascription were true. The closest we could come would itself be nonsensical, something like: This proposition would say that Sharon Daniels. Any attempt to ascribe a nonsensical content to a proposition must therefore misfire, not in the mere sense of being false, since a false ascription is still an ascription, but in the more profound sense of not even ascribing a content at all.

We can now see the sense in which (2) needs to be ‘ruled out’. It is not enough that (2) be false when  $a$  is a proposition. If a proposition has its content by virtue of standing in relation  $R$  to certain things, then (2) must be ruled out as *nonsensical*. Otherwise, nonsensical propositions would be expressively possible: whether or not (2) were true, it would still ascribe a nonsensical content to  $a$ .

Now, just as in the case of judgment, what is needed to guarantee that (2) is nonsensical is a *symbolic* type-restriction to the following effect: only monadic predicates can be substituted for ‘ $F$ ’ in ‘ $R(a, b, F)$ ’. This restriction will rule (2) out as ill-formed, and more generally entail that an instance of ‘ $R(a, b, F)$ ’ is well-formed just when the corresponding instance of ‘ $Fb$ ’ is well-formed too.

Of course, if we include this sort of type-restriction, then we must say that, despite the appearances to the contrary, ‘funniness’ *really* appears in (1) as a monadic predicate; otherwise (1) would be as ill-formed as (2). Now, whether an expression is a monadic predicate is not a mere matter of typography. To be a monadic predicate is to have a certain kind of linguistic function. However exactly we spell out the kind of function that monadic predicates have, the following seems truistic: part of what it is to have the function of a monadic predicate is to have one argument place that must be filled or otherwise bound in a complete sentence. In particular then, if ‘funniness’ appears in (1) as a monadic predicate, it must appear with an argument place that is filled or bound. As far as I can tell, there is only one sensible way of filling or binding this argument place here: it should be filled with ‘Sharon’. (1) must somehow capture the fact that  $a$  attributes the property of funniness to Sharon. And if ‘funniness’ appears in (1) as a predicate, then the way to capture this fact is by writing ‘Sharon’ into its argument place. As it stands, then (1) is a little misleading, and it would be more perspicuous to write it as:

(4)  $R(a, \text{Sharon is funny})$

But what we now have is a version of the Prenective View applied to propositions: (4) breaks down into the name ‘ $a$ ’, the sentence ‘Sharon is funny’, and what has now been revealed to be a prenective joining the two together, ‘ $R(x, p)$ ’.

To be clear, I am not saying that there is anything wrong with the idea that propositions are structured entities, or that a proposition has the content it has by virtue of being built out of its constituents in the way that it is. The point is simply that under the pressure of Wittgenstein's objection to Russell, these ideas are transformed into another version of the Prenective View. And as we saw in Sect. 4, when we accept the Prenective View for propositions, we are naturally compelled to accept it across the board.

## 8 Conclusion: truth on the Prenective View

What all of the foregoing shows is that there is a considerable force driving us away from the Standard View and towards the Prenective View. As we saw in Sect. 3, the Standard View must be restricted so as not to apply to propositions. But when we restrict the view in this way, we must offer an alternative account of the propositional contents of propositions. The two most obvious ways of trying to develop such an account turn out to be instances of the Prenective View for propositions. And the Prenective View cannot be contained: once we accept it for propositions, there is good reason to accept it in a fully general form. Now, I cannot pretend that any of this shows, once and for all, that we should adopt the Prenective View. But I do think that this is enough to show that we should take the view seriously. In this concluding section, then, I would like to say a little more about what the Prenective View amounts to.

On the Standard View, what it is for Simon to believe that Sharon is funny is for Simon to stand in the believing relation to the proposition that Sharon is funny. This is what the Prenective View is meant to reject. But how different is the Prenective View, really? Don't we now just say: Simon stands in the believing relation to the *propositional content* that Sharon is funny? And if that is what we say, can't we turn the argument against the Standard View against the Prenective View too? Propositional contents will need to be truth-apt, and thus they will also need to *have* propositional contents: we seem to be back at the absurd picture we have been trying to get away from since Sect. 3!

The mistake in this line of thought is the background assumption that propositional contents are *objects*, in the sense of being things that singular terms can refer to. On the Prenective View, propositional contents are not the sort of thing you can *refer to* with *singular terms*, but the sort of thing you can *express* with *sentences*. We could try putting this as follows: Propositional contents are not objects in the world, they are ways for the world to be.<sup>15</sup> But even this could be misleading, since ways for the world to be seem like the kind of thing you can refer to with singular terms. The best thing we can say is that any stretch of discourse in which we appear to refer to propositional contents with singular terms needs to be re-written, so that propositional contents are

<sup>15</sup> Johnston (2013: p. 386) suggests that we think of 'thinkables' (by which I think he means my propositional contents) as *ways things may be*. Although I do not agree with everything Johnston says in his paper, it seems to me that the positive view he is arguing for is substantially the same as the one I have argued for here.

only ever expressed with sentences; if this is not possible in any particular case, then that case must ultimately be written off as nonsense.<sup>16</sup>

Now consider the following claim:

(1) The propositional content that Sharon is funny is true

(1) appears to refer to a propositional content with a singular term, ‘the propositional content that Sharon is funny’, and then predicate truth of it. But this cannot be the right way to read (1) on the Prenective View: the apparent singular reference to a propositional content needs to be eliminated. Instead, (1) should be read as a mere periphrasis of:

(1') Sharon is funny

So on the Prenective View, (1) does not ascribe the property of truth to the propositional content that Sharon is funny; rather, it just says that Sharon is funny, in a few extra words. This might tempt us to say that the Prenective View incorporates a redundancy theory of truth for propositional contents, but I think that would be misleading. It is better to say: on the Prenective View, propositional contents are not the sort of thing that can be true or false; there is no external property of truth that can be applied to a propositional content. And this is what saves us from returning to the absurd picture painted in Sect. 3. If propositional contents are not truth-apt, then we are not forced to incoherently insist that propositional contents must *have* propositional contents too. We are then free to say:

(2) Simon stands in the *believing* relation to the propositional content that Sharon is funny

Although this in turn is just a periphrasis of:

(2') Simon believes that Sharon is funny

The real bearers of truth and falsehood on the Prenective View are the objects that have propositional content: beliefs, sentences, judgments and even the reified propositions posited by the Standard View, if they exist. The natural way to define truth for these things is as follows:

(T)  $x$  is true  $=_{df}$   $\exists p(x \text{ says that } p \ \& \ p)$ <sup>17</sup>

Of course, it is not only the advocates of the Prenective View who might want to define truth with (T), but this definition does take on a distinctive philosophical character on this view. Here are two different ways in which we might parse (T):

(T<sub>S</sub>)  $x$  is true  $=_{df}$   $\exists p(x \text{ says [that } p] \ \& \ p)$

(T<sub>P</sub>)  $x$  is true  $=_{df}$   $\exists p(x \text{ says that } [p] \ \& \ p)$

<sup>16</sup> This is not to deny that it might be helpful, elucidatory nonsense. Indeed, I am far from convinced that all of the apparent singular references to propositional contents in *this* paper could be eliminated; if not, then the best I can hope for is that this paper is nonsensical in a *helpful sort of way*. This is, of course, precisely the predicament that Wittgenstein found himself at the end of the *Tractatus*, which is no surprise, given how much I have clearly borrowed from that book.

<sup>17</sup> For a recent defence of this definition of truth, see Rumfitt's (2014).

( $T_S$ ) is the Standard parsing, and ( $T_P$ ) is the Prenective parsing. If we define truth with ( $T_S$ ), we open up a gap between:

- (i) What  $x$  says
- (ii) How things must be for  $x$  to be true

In ( $T_S$ ), we use a *term* to refer to what  $x$  says, ‘that  $p$ ’, but a sentence to say how things must be for  $x$  to be true, ‘ $p$ ’. This is the difference between referring to the proposition that Sharon is funny, and actually saying: Sharon is funny. Of course, there is still an obvious kind of correspondence between (i) and (ii), which is presumably what we will use to bridge the gap between them. There is a sense, then, in which anyone who defines truth with ( $T_S$ ) will have to endorse a kind of *correspondence theory* of truth.

By contrast, if we define truth with ( $T_P$ ), the Prenective parsing of (T), we are led to a version of the *identity theory* of truth. Admittedly, we have not defined truth in terms of identity—we have not said anything like:  $x$  is true  $\equiv_{df}$   $x$  is identical to a fact. But that we have a version of the identity theory here is captured by the fact that when define truth with ( $T_P$ ), there is no gap between (i) and (ii): in ( $T_P$ ) we use one sentence, ‘ $p$ ’, to express both what  $x$  says and how things must be for  $x$  to be true. We thus have a version of the identity theory according to which:

there is no ontological gap between the sort of thing one can mean, or generally the sort of thing one can think, and the sort of thing that can be the case. When one thinks truly, what one thinks is what *is* the case. So since the world is everything that is the case [...], there is no gap between thought, as such, and the world.  
(McDowell 1994: p. 27)

## Appendix

Throughout this paper, I have intentionally dodged the question of how exactly propositions are ‘built’ out of their constituents. Untrusting readers may well think that this was not the innocent expositional device I claimed it to be. To soothe their suspicions, I will quickly outline some contemporary approaches to structured propositions; in each case it will be immediately clear that they yield a version of the multiple-relation theory of the contents of propositions, and are thus vulnerable to the argument from Sect. 7.

### Neo-Russellian propositions

According to *neo-Russellianism*, propositions are just ordered sequences of the things that they are about. So the proposition that Sharon is funny is just  $\langle \text{Sharon, funniness} \rangle$ . Now, as far as I know, no one has ever really believed neo-Russellianism. Nonetheless, neo-Russellian propositions are often used as toy models, and so it is worthwhile seeing how my discussion connects to them.

To begin with, if we claimed that a neo-Russellian proposition has its content by virtue of being the particular ordered sequence of the things that it is, then we would obviously be endorsing a version of the multiple-relation theory of the contents of

propositions. We would be claiming that a proposition,  $a$ , says that Sharon is funny by virtue of a fact of the following form:

- (1)  $R(a, \text{Sharon, funniness})$

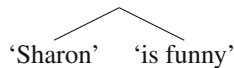
$R(x, y, z)$  is here short for:  $x$  is the ordered sequence of  $y$  and  $z$ . The problem for neo-Russellianism is that it does not properly rule out a proposition whose content is given as follows:

- (2)  $R(a, \text{Sharon, Daniel})$

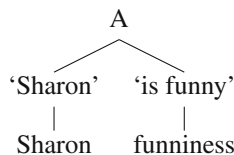
Now, there is obviously nothing wrong with the ordered pair (Sharon, Daniel), just taken as an ordered pair. But it cannot be identified with a proposition, since it would be the nonsensical proposition that Sharon Daniels. Of course, a neo-Russellian could add principles guaranteeing that when  $a$  is a proposition, (2) is false. But that is not what we really need. (2) must not be false, but *nonsensical*. And that is not something that neo-Russellianism can accommodate: if  $R$  is the ordinary mathematical relation  $x$  is the ordered sequence of  $y$  and  $z$ , then (2) is perfectly meaningful. Neo-Russellianism is thus too inflexible to be transformed into a version of the Prenective View, which was meant to be the end point of the argument from Sect. 7. But that is not to say that it somehow dodges that argument; rather, it is *refuted* by that argument.

### King's propositions

We turn now to [King \(2007: ch.2; King et al. 2014: pp. 49–59\)](#), who identifies the proposition that Sharon is funny with a certain complex fact, namely the fact that: there is a context  $c$  and there are lexical items  $a$  and  $b$  of some language  $L$  such that  $a$  has Sharon as its semantic value in  $c$ ,  $b$  has funniness as its semantic relation in  $c$ , and  $a$  and  $b$  are related by some syntactic relation that encodes ascription in  $L$ . This way of describing the fact is a bit of a mouthful, but it can be neatly summarised diagrammatically. We start with the familiar use of a tree to represent the syntactic structure of 'Sharon is funny':

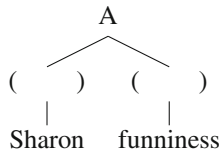


We then add some semantic information to this tree:



This tree expands on the first one by adding the ideas that 'Sharon' stands for Sharon and 'is funny' stands for funniness (relative to some context  $c$ ), and that the syntactic relation between 'Sharon' and 'is funny' encodes ascription. (Importantly, this syntactic relation does not *stand for* ascription, as 'Sharon' stands for Sharon; rather, it

‘encodes’ ascription, in the sense that any fluent English speaker ascribes funniness to Sharon when they read ‘Sharon is funny’. See: King 2007: pp. 34–38.) Finally, we ‘existentially generalise away’ the lexical items ‘Sharon’ and ‘is funny’, yielding the fact that King identifies with the proposition that Sharon is funny:



Call the relation that holds between Sharon and funniness in this fact  $P(y, z)$ : *there is a context  $c$  and there are lexical items  $a$  and  $b$  of some language  $L$  such that  $a$  has  $y$  as its semantic value in  $c$ ,  $b$  has  $z$  as its semantic relation in  $c$ , and  $a$  and  $b$  are related by some syntactic relation that encodes ascription in  $L$* . According to King (2007: pp. 59–64, 2009: pp. 265–273; King et al. 2014: pp. 52–55), the proposition that Sharon is funny has its content by virtue of two factors coming together: the first is that this proposition is identical to the fact that  $P(\text{Sharon, funniness})$ ; the second is that we interpret  $P$  itself as also encoding ascription.<sup>18</sup> Putting these two factors together, we have a version of the multiple-relation theory of the content of propositions, according to which the proposition that Sharon is funny has its content by virtue of a fact of the following form:

- (1)  $R(a, \text{Sharon, funniness})$

$R(x, y, z)$  is here short for:  $x$  is the fact that  $P(y, z)$ , and  $P$  is interpreted as encoding ascription. From here, Sect. 7 can proceed exactly as it did.

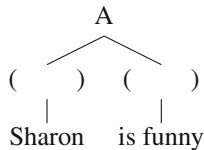
However, there is one potential point of confusion that I need to clear up. In his (2009: pp. 274–276), King claims that there could be a proposition that had Sharon and Daniel as its only constituents. But King is certainly not suggesting that there could be a nonsensical proposition that ascribes Daniel to Sharon. Rather, King’s point is just that a relation between Sharon and Daniel could be interpreted as encoding *something* propositional; for example it could be interpreted as ascribing the *is older than* relation. The important thing for our purposes is that King thinks it would be incoherent to imagine that any relation which holds between Sharon and Daniel could be interpreted as encoding *ascription*, at least in the sense in which he thinks that  $P$  encodes ascription. Thus, King would agree that the following must be ruled out somehow:

- (2)  $R(a, \text{Sharon, Daniel})$

<sup>18</sup> In some places, King (e.g. 2007: p. 61, 2013, p. 77) says that the proposition that Sharon is funny is *really* the fact that  $P(\text{Sharon, funniness})$  and  $P$  encodes ascription. This seems to me to be a mistake. King adds the idea that  $P$  encodes ascription to explain why the fact that  $P(\text{Sharon, funniness})$  has a propositional content when most facts don’t: the fact that  $P(\text{Sharon, funniness})$  has a content *because* we interpret  $P$  in a certain way. But what we have here is an explanation of why the fact that  $P(\text{Sharon, funniness})$  has a propositional content, not why the ‘bigger’ fact that  $P(\text{Sharon, funniness})$  and  $P$  encodes ascription does. It seems crucial to King’s explanation, then, that the proposition that Sharon is funny not be identified with this bigger fact, but with the smaller fact that  $P(\text{Sharon, funniness})$ .



However, King does not seem to appreciate that nonsensical propositions are impossible in the distinctive *expressive* sense, and thus that (2) must be nonsensical. To accommodate this impossibility, King would need to introduce a symbolic type-restriction, and say that ‘funniness’ appears in (1) as a monadic predicate. What would this type-restriction look like in the wider context of King’s theory? Well, let’s go back and modify King’s diagram appropriately:



The expression ‘is funny’ is meant to appear at the bottom of this diagram as an actual, used predicate. This will require that we rethink what it means to say that the syntactic relation in this diagram ‘encodes ascription’, since in ordinary English, it is ungrammatical to say ‘is funny is ascribed to Sharon’. Fortunately, this is not too much of a problem. Presumably, this talk of ‘encoding ascription’ now just means that when we make a sentence by combining an expression which refers to Sharon with an expression that says of an object that it is funny, we end up with a sentence which says that Sharon is funny. And clearly, the ‘says that  $p$ ’ here must be given the Prenective parsing, ‘says that [ $p$ ]’, not the Standard parsing, ‘says [that  $p$ ]’; otherwise we would be back to the absurd picture from Sect. 3, where we try to apply the Standard View to propositions. But now we have a version of the Prenective View, and (1) would be more perspicuously written as:

(4)  $R(a, \text{Sharon is funny})$

### Soames’ propositions

Next we have Soames’ (2010: ch. 6) theory that propositions are types of events.<sup>19</sup> According to Soames, when we entertain the thought that Sharon is funny, we predicate funniness of Sharon. He then suggests that we identify the proposition that Sharon is funny with the minimal event-type of predicating funniness of Sharon: this is the type under which an event falls iff it involves an agent predicating funniness of Sharon.

According to Soames (2010: pp. 106–107; King et al. 2014: p. 96, pp. 234–235 & pp. 239–241), particular, token acts of predication are inherently representational, and the events that Soames identifies with propositions somehow inherit their propositional contents from their tokens. The details of this aspect of Soames’ theory are subtle, and have changed over time. But for our purposes, these details do not matter. What is clear is that on Soames’ view, the proposition that Sharon is funny says that Sharon is funny *because* it is the minimal event-type of predicating *funniness* of *Sharon*. Thus, he endorses a version of the multiple-relation theory of the content of propositions,

<sup>19</sup> More recently Soames (King et al. 2014: pp. 240–241 esp. fn. 16) has become attracted to the idea that propositions are types of act, but this is not a difference that makes any real difference for us.

according to which the proposition that Sharon is funny has its content by virtue of a fact of the form:

- (1)  $R(a, \text{Sharon, funniness})$

But now,  $R(x, y, z)$  abbreviates: *x is the minimal event-type of predicating z of y*. The argument from Sect. 7 will therefore straightforwardly engage with Soames' account of propositions. Soames' will need to find a way of ruling out the following as nonsensical:

- (2)  $R(a, \text{Sharon, Daniel})$

This would require reading 'funniness' in (1) as a monadic predicate, and thus thinking of it as having an argument place that must be filled or otherwise bound. As far as I can tell, there is only one sensible way of doing that: it should be filled by 'Sharon'. (1) should therefore be re-written as:

- (4)  $R(a, \text{Sharon is funny})$

Of course, this change from (1) to (4) would in turn require a new gloss on what  $R$  is. As best as I can tell, it should be thought of as  $R(x, p)$ : *x is the minimal type-event of saying that p*. And again, the 'saying that  $p$ ' here must be given the Prenective parsing, not the Standard parsing; otherwise we would be back to the absurd picture from Sect. 3.

## Hanks' propositions

Finally we come to Hanks' (2011, 2015) view, according to which propositions are types of act: roughly, the proposition that Sharon is funny is the act-type of predicating funniness of Sharon. So far this sounds very similar to Soames' theory,<sup>20</sup> but there are two noteworthy difference. The first, which is not all that important for our purposes, is that Hanks insists that predication is inherently assertive: according to Hanks, to predicate funniness of Sharon is not to merely entertain the thought that Sharon is funny, but to assert it.<sup>21</sup> Second, and much more to our point, Hanks does not think that Sharon and funniness are constituents of the proposition that Sharon is funny. He represents this proposition as follows:

$\vdash \langle \text{Sharon, FUNNINESS} \rangle$

$\vdash$  is the act-type of predication, but **Sharon** is not the person Sharon and FUNNINESS is not the property funniness. Instead, **Sharon** is the act-type of referring to Sharon and FUNNINESS is the act-type of expressing funniness.<sup>22</sup> (Importantly, 'expressing' a property is simply a matter of singling the property out, and does not involve applying

<sup>20</sup> Especially given Soames' recent sympathy for the idea that propositions are *act*-types rather than *event*-types.

<sup>21</sup> In fact, Hanks (2015: pp. 36–39) even accuses Soames' use of a non-assertive predication of being incoherent.

<sup>22</sup> This is a little bit of a simplification. See (Hanks 2011: §§4–6, 2015: chs. 5 & 7) for very interesting discussions about which particular act-types **Sharon** and FUNNINESS are.

it to anything; it is  $\vdash$  which does the applying. Equally importantly, Hanks is not using angle brackets to represent an ordered sequence, but simply to indicate the order in which one thing is predicated of another.) Hanks' theory is, then, more Fregean than Russellian: the constituents of a proposition are not the things that the proposition is about, but other entities which somehow go proxy for those things.

Nonetheless, Hanks ends up offering us a version of the multiple-relation theory. Like Soames, [Hanks \(2015: ch. 3\)](#) thinks that his propositions, i.e. act-types of predication, inherit their propositional contents from their tokens. In particular, then, the proposition that Sharon is funny says that Sharon is funny because tokening it is a matter of predicating funniness (which we express by tokening FUNNINESS) of Sharon (whom we refer to by tokening **Sharon**). Thus, Hanks' view is that the proposition that Sharon is funny has its content by virtue of a fact of the following form:

(1')  $R(a, \text{Sharon}, \text{FUNNINESS})$

Here  $R(x, y, z)$  abbreviates: *x is the act-type of referring to an object by tokening y, expressing a property by tokening z, and (assertively) predicating that property of that object.* The problem for Hanks' theory would then be that it does not appropriately rule out:

(2')  $R(a, \text{Sharon}, \text{Daniel})$

Although (2') will be necessarily false on Hanks' view, since tokening **Daniel** is not a way of expressing a property, it will still be perfectly well-formed: as Hanks explains it, 'FUNNINESS' and '**Daniel**' are both just singular terms referring act-types of picking out entities.

Of course, Hanks could try installing a type distinction between 'FUNNINESS' and '**Daniel**', but it is important to remember that this type-restriction must be *symbolic*, not *ontological*: it will not do just to say that 'FUNNINESS' and '**Daniel**' stand for different types of act; we must introduce some difference in the way that these expressions themselves function. My suggestion here would be that Hanks treat 'FUNNINESS' as a functional expression (not a predicate). The idea is that 'FUNNINESS' stands for a function which maps **Sharon** to the act-type of referring to Sharon by tokening **Sharon**, and asserting of her that she is funny; or more simply put, it maps **Sharon** to the act-type of asserting that Sharon is funny. Of course, if that is how we think of 'FUNNINESS', then we should re-write (1') as:

(4')  $R(a, \text{FUNNINESS}(\text{Sharon}))$

Again, this would require giving a new reading of  $R$ . The only suggestion that seems appropriate here is that (4') says that  $a$  is the act-type FUNNINESS(**Sharon**), i.e. the act-type of asserting that Sharon is funny. And once more, 'asserting that  $p$ ' must here be given the Prenective parsing, not the Standard parsing; otherwise, we will back to the absurd picture from Sect. 3. (4') is, then, just a heavily disguised version of the Prenective View for propositions.

**Acknowledgements** I would especially like to thank Tim Button, Colin Johnston, Nick Jones, Steven Methven, Bryan Pickel, Michael Potter, Michael Price and Peter Sullivan for all of their help. Thanks also to two anonymous reviewers for their helpful comments. Finally, thanks to everyone at the 2016 conference on the Identity Theory of Truth at Trinity College, Cambridge.

**Open Access** This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

## References

- Beane, M. (Ed.). (1997). *The Frege reader*. Oxford: Blackwell.
- Braithwaite, R. (Ed.). (1931). *The foundations of mathematics and other logical essays*. London: Routledge.
- Dodd, J. (2000). *An identity theory of truth*. London: Macmillan Press.
- Frege, G. (1893). *Die Grundgesetze der Arithmetik* (Vol. 1). Jena: Pohle.
- Frege, G. (1918). Thought. In Beane 1997 (pp. 325–345).
- Frege, G. (1923). Compound thoughts. In McGuinness 1984 (pp. 390–406).
- Griffin, N. (1985). Russell's multiple relation theory of judgment. *Philosophical Studies*, 134, 213–247.
- Hanks, P. (2007). How Wittgenstein defeated Russell's multiple relation theory of judgment. *Synthese*, 154, 121–46.
- Hanks, P. (2011). Structured propositions as types. *Mind*, 120, 11–52.
- Hanks, P. (2015). *Propositional content*. Oxford: Oxford University Press.
- Johnston, C. (2013). Judgment and the identity theory of truth. *Philosophical Studies*, 166, 381–97.
- King, J. (2007). *The nature and structure of content*. Oxford: Oxford University Press.
- King, J. (2009). Questions of unity. *Proceedings of the Aristotelian Society*, 109, 257–77.
- King, J. (2013). Propositional unity: What's the problem, who has it and who solves it? *Philosophical Studies*, 165, 71–93.
- King, J., Soames, S., et al. (2014). *New thinking about propositions*. Oxford: Oxford University Press.
- Künne, W. (2003). *Conceptions of truth*. Oxford: Oxford University Press.
- McDowell, J. (1994). *Mind and world*. Cambridge, MA: Harvard University Press.
- McGuinness, B. (Ed.). (1984). *Collected papers on mathematics, logic and philosophy*. Oxford: Blackwell.
- Potter, M. (2009). *Wittgenstein's notes on logic*. Oxford: Oxford University Press.
- Prior, A. (1971). *Objects of thought*. Oxford: Oxford University Press.
- Quine, W. (1960). *Word and object*. Cambridge, MA: MIT Press.
- Quine, W. (1970). *Philosophy of logic*. Englewood Cliffs, NJ: Prentice-Hall.
- Ramsey, F. (1927). Facts and propositions. In Braithwaite 1931 (pp. 138–155).
- Ramsey, F. (1991). On truth. In No. 16 in *Episteme*. Dordrecht: Kluwer.
- Rumfitt, I. (2014). Truth and meaning. *Proceedings of the Aristotelian Society Supplementary*, 88, 21–55.
- Russell, B. (1903). *The principles of mathematics*. London: Allen and Unwin.
- Russell, B. (1910). On the nature of truth and falsehood. In *Philosophical essays* (pp. 147–159). London: Allen and Unwin.
- Russell, B. (1913). *Theory of knowledge, vol. 7 of the collected papers of Bertrand Russell*. London: Routledge.
- Russell, B. (1918). The philosophy of logical atomism. In Russell 2007 (pp. 175–281).
- Russell, B. (2007). *Logic and knowledge* (2nd ed.). Nottingham: Spokesman.
- Soames, S. (2010). *What is meaning?*. Princeton: Princeton University Press.
- Wittgenstein, L. (1922). *Tractatus logico-philosophicus*. London: Kegan Paul and Trubner.
- Wittgenstein, L. (1995). *Cambridge letters: Correspondence with Russell, Keynes, Moore, Ramsey and Sraffa*. Oxford: Blackwell.