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THE
CORRESPONDENCE
THEORY
OF TRUTH

AN ESSAY ON THE
METAPHYSICS OF
PREDICTION

ANDREW NEWMAN

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The Correspondence Theory of Truth

This work presents a version of the correspondence theory of truth based on Wittgenstein's *Tractatus* and Russell's theory of truth and discusses related metaphysical issues such as predication, facts, and propositions. Like Russell and one prominent interpretation of the *Tractatus*, it assumes a realist view of universals. Part of the aim is to avoid Platonic propositions, and although sympathy with facts is maintained in the early chapters, the book argues that facts as real entities are not needed. It includes discussion of contemporary philosophers such as David Armstrong, William Alston, and Paul Horwich, as well as those who write about propositions and facts and a number of recent students of Bertrand Russell. It will interest teachers and advanced students of philosophy who are interested in the realist conception of truth and in issues in metaphysics related to the correspondence theory of truth and those interested in Russell and the *Tractatus*.

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The Correspondence Theory of Truth

An Essay on the Metaphysics of Predication

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Now, it is agreed that every true predication has some
basis in the nature of things. . . .

Leibniz, *Discourse on Metaphysics*, 8

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Introduction

The simplest version of the correspondence theory of truth is that a proposition or a sentence is true when it corresponds to an appropriate fact, which is something in the world that makes a proposition or a sentence true.¹ This theory requires propositions or sentences as things that can be true or false, the truth bearers, and it requires facts as things in the world as the truth makers. Consequently, a work on the correspondence theory must not only give an account of how propositions and sentences correspond to the world, but must also discuss the nature of propositions and the nature of facts. The core of this work is therefore the discussion of these four topics:

- (1) How sentences correspond to the world.
- (2) How propositions correspond to the world.
- (3) The nature of propositions.
- (4) The nature of facts.

Most of the discussion concerns predicative propositions and predicative sentences, which are ones that ascribe properties and relations to particulars; they will be regarded as foundational, though how the notion of truth applies equally to other types of propositions and sentences will also be considered.

1 The one fact per proposition theory is simpler and more naïve than the alternative view (i.e., a proposition is true when it corresponds to appropriate facts) and seems to me to betray a lack of thought about what facts might be; whereas the alternative theory immediately requires some thought about the various ways in which different types of proposition are made true by facts and therefore requires some thought about the nature of facts. Alston, for example, appears to assume the one fact per proposition view (*A Realist Conception of Truth*, p. 38). See also Kirkham, *Theories of Truth*, chap. 4, particularly p. 139, and Marian David, *Correspondence and Disquotatation*, chap. 2, where there is some discussion of the nature of facts.

This work is written from a metaphysical point of view, and within a tradition that is realist about universals. There is an obvious connection between realism about universals and the correspondence theory of truth, since realism about universals implies that there is something in the world other than particulars in virtue of which sentences and propositions are true. For example, the sentence ‘Socrates is snub-nosed’ is made true in part by a certain shape possessed by the front of Socrates’s face, and the sentence ‘the knife is to the left of the book’ is made true in part by a certain relation found in the world. At the beginning of the twentieth century, this tradition was represented principally by Bertrand Russell and by Wittgenstein in the *Tractatus*, both of whom devoted considerable attention to the correspondence theory of truth. In mid-century, it was represented by Austin, who also produced a version of the correspondence theory, and more recently Armstrong has developed a philosophy that contains an important role for states of affairs (i.e., facts) as truth makers. As a consequence, I devote a considerable amount of space to discussions of Russell and Wittgenstein, since they are for recent times the classical writers on the correspondence theory of truth, and many important issues and ideas concerning that theory have their origin in their works.

The main difficulty with nominalism and the correspondence theory is that the central doctrine of nominalism is that particulars do not possess real features that could be the references of predicates, and which as things in the world could contribute to making propositions and sentences true.² Moreover, nominalism makes it difficult to make sense of facts as things existing in the world, because it is unable to provide components for facts other than particulars. Nominalists would be better off with theories of truth that consider propositions or sentences as wholes and do not say too much about the world, so that theories of truth of the deflationary type would suit them much better, which perhaps accounts for the popularity of such theories. Theories, such as those of Tarski and Davidson, that make use of the idea of an object satisfying a predicate are obviously nominalist-inspired.

Alston defends what he calls a realist conception of truth, which is that “there is a fundamental sense in which truth has to do with the relation of a potential truth bearer to a REALITY beyond itself”,³ and that there

2 For further discussion of nominalism, see Chapter 1, sections 1.1 and 1.2.

3 Alston, *A Realist Conception of Truth*, p. 8. In the footnote he notes that this statement has to be qualified to handle self-referential statements.

is a fundamental sense in which the notion of truth is independent of epistemological concepts, particularly those related to justification. Alston's realist conception of truth is opposed to both old-fashioned idealism and contemporary anti-realism. Crispin Wright, in fact, acknowledges a link between those two,⁴ and Michael Dummett seems clearly committed to a form of idealism: "The picture of reality as an amorphous lump, not yet articulated into discrete objects, thus proves to be the correct one, so long as we make the right use of it."⁵ On this view one of the few propositions that could be taken to be true in a realist sense is this proposition itself about the world out there being amorphous. Not only would it be natural for realists about universals to follow Alston in endorsing a realist conception of truth, I doubt whether a realist conception of truth is possible without some sort of realism about properties and relations.

In his discussion, Alston assumes the simplest version of the correspondence theory of truth, which can be called the naïve version of the correspondence theory, namely, that propositions are truth bearers, with a minimal explanation given of their nature, and that to each and every true proposition there is a single fact in the world that corresponds to it and makes it true. It is a fairly common view and, given that Alston wants to defend a minimalist, realist conception of truth, one that is perhaps suitable enough for his purposes. One of the difficulties with the naïve version is that it is unlikely that there will be enough facts for there to be one fact for each proposition, given the otherwise very sensible supposition that facts are components of reality, things existing objectively in the world. Another is the lack of any account of the ontological status of propositions or facts, which could be a serious problem if there were only a slight ontological distinction between facts and propositions, as is supposed by some contemporary philosophers, such as Chisholm and Bennett.

On account of these difficulties with the naïve correspondence theory of truth, and the claim by some that the objections to the correspondence theory are insuperable, as well as the fact that it has not been defended for quite a while, the defence of the correspondence theory of truth is a worthwhile project, even in the current climate, which is not particularly sympathetic to realism about universals nor uniformly sympathetic to a realist view of truth.

4 Wright, *Truth and Objectivity*, p. 3.

5 Dummett, *Frege, Philosophy of Language*, p. 577.

In philosophy today, generality is rightly held to be a virtue, and I admit that it would have been better to have developed a correspondence theory that was general enough to appeal not only to the various kinds of realist about universals, but also to the various kinds of nominalist. But, unfortunately, I do not think that it is possible. The most obvious way to study the correspondence theory of truth is to investigate the components and structure of facts and the components and structure of propositions, with a view to discovering how a fact and a proposition could correspond, but such a procedure clearly involves making assumptions about the basic furniture of the world.

Metaphysics, of all philosophical subjects, should go for generality, and should probably deal with the ways things could be rather than trying to deal with how things actually are, since we are not always very sure how things actually are. There is, however, a degree of generality in what follows in that much of the discussion appeals merely to realism about universals and should work for transcendent, that is, Platonic realism about universals, as well as the immanent (or Aristotelian) view of universals, and perhaps some of it could be adapted to suit particularists, for whom the properties and relations actually instantiated by particulars are themselves particulars.

Not only should truth be the same property for all the different forms of proposition, whether predicative or complex, an issue that is discussed in Chapters 2 and 8, truth should also be the same property for all propositions no matter what their subject matter. It should be the same property for logical, mathematical, probabilistic, ethical, and aesthetic propositions, for example. Unfortunately, this work is limited in scope, being concerned mainly with the metaphysical issues associated with predicative propositions and sentences. Perhaps the methods developed for predicative propositions could be extended to deal with modal and mathematical propositions by understanding their ultimate truth makers as being relations between universals, as Russell, in effect, suggests – it would be a matter of first-order universals falling under second-order universals.⁶ But for other types of proposition, the account that should be given of what makes them true will depend on the metaphysical details of the account that is given of that particular subject area.

Truth should also be the same property in whatever realm it is applied. The familiar spatio-temporal realm of physical objects is an example of

6 Russell, *The Problems of Philosophy*, p. 103. See also Linsky, “Truth Makers for Modal Propositions”, and Newman, *The Physical Basis of Predication*, chap. 3.

a realm, though some philosophers have rejected it and replaced it by one or more other realms with very different characters, while others have kept it and added other realms to it, and yet others have insisted that it is the only realm. Some philosophers have supposed that there are purely temporal realms, such as that occupied by one of Leibniz's monads, or the one occupied by Aquinas's angels, or that occupied by God on some views of God.⁷ These are, nevertheless, all examples of dimensioned realms. A person's visual field is also regarded by some as a distinct dimensioned realm; it is the realm where Russell officially located his particulars and universals in his later discussions of the correspondence theory, though he frequently used other examples.⁸ Two examples of dimensionless realms, which, I assume, are not the same realm, are that occupied by God according to the timeless view of God of Augustine, Boethius, and Aquinas, and the world of abstract objects, also known as Plato's heaven and Frege's third realm. It seems natural enough to suggest that the natural numbers and the form of justice should occupy a dimensionless realm – on the other hand, it does seem odd to suggest that the ideal sphere should occupy a dimensionless realm, though it has been argued by Armstrong on behalf of Platonists that the ideal sphere is not a sphere. It is significant that the point of view developed in this work is such that Platonists about universals could follow it more closely than the adherents of any other metaphysical position. I maintain sympathy with Platonism about universals throughout, because for the purposes of this work there is no reason not to, though I argue against Platonic propositions.

For the sake of argument and for the sake of convenience, I take "the world" to be the spatio-temporal realm, not on account of commitment to naturalism, but because it is the most familiar realm and it is "the world" in its most canonical form, the paradigmatic realm. On any view it is a good place to start, and any theory developed for the space-time world is indeed likely to be a paradigm for other applications. For example, if there were dimensionless realms, such as a Fregean third realm, then the basic truths concerning that world would be predicative in nature, being about subjects of predication, which would be non-predicative entities such as Fregean objects, falling under entities with a predicative role, such as Fregean concepts. For any version of a correspondence theory that

7 Cf. Strawson, *Individuals*, chap. 2.

8 Cf. Evan Fales, *Causation and Universals*. I do not claim this list of realms is exhaustive; mathematicians, for example, may be able to dream up other types of realm.

applies to particulars and universals, a similar theory would also apply in a dimensionless realm.⁹

The first two chapters are preliminary discussions. Chapter 1 concerns the relation between theories of universals and the idea of a correspondence theory of truth, and Chapter 2 is about how truth should be the same property for all propositions. Chapter 3 is about correspondence for sentences, while Chapters 4 and 5 are about how predicative propositions correspond to the world. Chapter 6 is about the nature of facts and Chapter 7 is about the nature of propositions, with Chapter 8 being an attempt to extend the ideas developed in previous chapters to complex propositions. The following remarks are a summary of the positions taken on the four principal topics: correspondence for sentences, correspondence for propositions, the nature of facts, and the nature of propositions.

If “the universe consists of objects having various qualities and standing in various relations”, as Russell supposed and as I assume, then there is a sense in which predicative propositions are fundamental, where a predicative proposition is one that ascribes a property to a particular or a relation to a number of particulars.¹⁰ Such propositions appear to be among the most straightforward things that we believe, though it will be seen that they raise several difficult issues.

The correspondence theory of truth works best for predicative sentences. The theory presented in this work is a modification of Wittgenstein’s theory of the truth of elementary sentences of the *Tractatus*, on the interpretation where his “objects” are divided into particulars, properties, and relations, so that his elementary sentences are examples

9 The main difficulty with dimensionless realms from the point of view of realism about universals is that the distinction between particular and universal, or between particular and form (for Platonism), is not immediately applicable, since for both versions of realism it appears that the notion of a particular is that of something that can occur in only one place at a given time. In Chapter 1, n. 40, I make a suggestion about how to make a general distinction between non-predicative entities and predicative entities. In a previous work I gave a characterization of the notions of particular and universal that involved several stages, starting with a syntactic characterization and including modal and causal characterizations (Newman, *The Physical Basis of Predication*, particularly chap. 2). The early phases of that process of characterization can be used to fix a notion of predicative entity and non-predicative entity, where a non-predicative entity is a subject of predication only and never predicated of anything. Non-predicative entity and predicative entity are what particulars and universals become when there are no dimensions. But, as it happens, I do not feel a pressing need to say much more about dimensionless realms, since I do not believe for a moment that there are such things, and I am not convinced that they are even possible.

10 Whitehead and Russell, *Principia Mathematica*, p. 43.

of predicative sentences. It will be seen that this theory can be extended to many other predicative sentences. However, the version I give differs from his in several ways, the most important being that it does not involve an isomorphism or congruence between a sentence and something in the world, but posits instead a type of correlation between a sentence and the world.

For Wittgenstein, an elementary sentence says something, or has a sense, in virtue of having a certain structure and in virtue of its components being related to certain “objects” in the world. The sentence itself is thought of as being directed towards the world and not as having any connection with an abstract proposition. For Russell, a person has a predicative belief in virtue of being related to one or more particulars in the world and also to a relation, which are the same “objects” that Wittgenstein’s elementary sentence is related to on the interpretation of the *Tractatus* that I favour. Having a belief for Russell is a matter of the person’s attention being directed towards these things in the world in a certain way. Wittgenstein’s theory and Russell’s theory are similar in this matter of directedness.

The account given of the truth of propositions is a modification of Russell’s theory of the truth of beliefs put forward first in 1910, the principal part of this theory being a theory of belief or judgement, which is usually known as Russell’s theory of judgement. One of the most striking things about Russell’s theory is the sheer number of objections that have been levelled against it, in contrast to the rather small number of people who have been prepared to defend it. The only explanation I can think of for this disparity is that Russell had touched on a fundamental issue worthy of serious attention. Foremost among the objectors was Wittgenstein, whose theory of the truth of beliefs in the *Tractatus* was a simple modification of his theory of the truth of sentences and was intended to be an alternative to Russell’s theory. For all that, there are some fundamental similarities between Wittgenstein’s theory of the truth of elementary sentences and Russell’s theory of truth; and I develop them in a way that brings out their similarities.

Something like correspondence conditions for propositions can be given, though it must be admitted (and it is admitted in the text) that they are not straightforward. Correspondence would perhaps be more plausible if propositions were abstract entities and therefore quite separate from the world and more plausibly regarded as independent entities. On the view proposed, however, a proposition is a unit not capable of independent existence that is constructed from a type of intentional relation

and which is governed by a certain criterion of identity. Since a proposition is a different type of thing from any other units found in the world – it is a different type of thing from a fact, for example – it makes sense to say that it corresponds to the world. One of the advantages of this Russellian view of propositions is that it enables us to dispense with entities in other realms by providing an explicit, defensible, immanent, or Aristotelian view of propositions.

The second two issues, namely, the ontological status of facts and propositions, are ones that must be discussed by anyone interested in the metaphysical issues associated with the correspondence theory. There is some current interest in the nature of facts and propositions, but what there is is slight and lacks confidence, though they are two issues that are natural areas of investigation for realists about universals. The *Tractatus*'s account of the truth of sentences and Russell's account of the truth of propositions are similar not only in that neither theory involves abstract or Platonic propositions, nor indeed makes any use of entities in a world of abstract objects, but also because both make considerable use of facts as entities.

It is difficult to avoid the notion of "fact". Most writers assume that there are such things, though with varying degrees of ontological commitment. For the purposes of this work I distinguish two general approaches to the nature of facts. The *compositional* approach starts with certain real things that could be the components of facts and regards a fact as something formed by putting those things together, with the result that there are fewer facts than on alternative views. There would, then, be a possibility of a fact being a real unit on account of its components being real units, depending to some extent on the mode of composition that is ascribed to facts. This view of facts could be regarded as the classical view of facts, the one held by Russell and Wittgenstein, and developed recently by Armstrong. I try to maintain sympathy with this view for as long as possible, partly on account of my sympathy with these authors and partly on account of the convenience of facts as entities. But in the end, despite my sympathy and despite their convenience, I shall find the case for facts as real units unconvincing.

The *linguistic view* of facts starts with certain linguistic expressions and singles out some of these on account of their linguistic form as describing states of affairs, states of affairs being introduced merely as entities described by such expressions, and it then explains facts as states of affairs that obtain. This view leads to a large number of states of affairs, because there are a large number of possible linguistic expressions of the

right type. Although the linguistic view of facts usually comes without much in the way of ontological interpretation, it will be seen that the best way to make sense of its various claims is to regard the facts and states of affairs of the linguistic view as abstract things or Platonic entities, following Plantinga. In fact, a number of writers, such as Chisholm and Bennett, have recognized a close similarity between states of affairs and propositions, but then they seem to be at a loss to explain how they might differ.

The unadorned term ‘proposition’ will be used for the content of what is believed, or the content of what is stated, and for what is expressed by an indicative sentence; it is what writers such as Richard Cartwright and J. L. Austin call a ‘statement’. This use of the term ‘proposition’ carries with it no commitment as to the nature of propositions, other than that propositions are different from sentences and that the same proposition can be believed, stated, or expressed on many different occasions. It is, in effect, a minimalist notion of proposition similar to that employed by Alston, minimalist in the sense of carrying with it minimal ontological commitment.¹¹ The use of the term ‘Platonic proposition’, on the other hand, indicates a commitment to the view that propositions are abstract entities that exist in the Platonic realm.

I argue against Platonic propositions, and argue for Russellian propositions, where Russellian propositions involve the things they are about and are only instantiated when thought by someone. They are more or less equivalent to the currently popular singular propositions, which normally come without any metaphysical clothing, and are usually discussed without much recognition of the metaphysical problems associated with them.¹²

11 Alston, *A Realist Conception of Truth*, pp. 17–22.

12 Mark Sainsbury says that a number of philosophers today, such as Kaplan and Recanati, accept theories similar to Russell’s but do not appreciate that they raise a problem of propositional unity, “How can something say something?” (pp. 144–45).

1

Universals, Predication, and Truth

1.1 THE PROBLEM OF UNIVERSALS

At the beginning of the twentieth century there was a strong tradition of realism about universals that was closely associated with a correspondence approach to truth. This view was represented by major figures such as Russell, Moore, and Wittgenstein of the *Tractatus*, according to many interpreters, such as Black and Fahrnkopf.¹ It was also represented by less well-known figures, such as W. E. Johnson; John Wisdom, who endorsed Russell's 1910 theory of truth; and F. P. Ramsey, who endorsed the associated theory of judgement.² Russell and Wittgenstein's work on logical atomism is to a large extent devoted to the correspondence theory of truth, despite the fact that neither used the term 'correspondence theory of truth' in the titles of any of their works. Russell, while being clear about the nature of the immanent realist view of universals, was apparently a Platonist about properties and relations in the early part of the twentieth century, though he was less clear about the nature of Platonism.³ And despite the fact that he made a point of rehabilitating relations, he echoed the scepticism about relations of Leibniz and Ockham by regarding them as things obviously not found in this world. But by 1940, at any rate, Russell had become an immanent realist.⁴

1 Black, *Companion to the Tractatus*; Fahrnkopf, *Wittgenstein on Universals*.

2 See Johnson, *Logic*; Ramsey, "Universals"; Wisdom, *Problems of Mind and Matter*.

3 He argues for this position in "On the Relations of Universals and Particulars" of 1911; on the other hand, there are hints of immanent realism in *The Principles of Mathematics*, e.g. pp. 51–52 and 467. See J. O. Urmson, "Russell on Universals".

4 See Russell, *An Inquiry into Meaning and Truth* of 1940 and *Human Knowledge* of 1948.

This tradition of realism about universals persisted into mid-century in the work of Ayer, Austin, and Strawson, with Ayer echoing Russell,⁵ but with Austin and Strawson less happy about metaphysical investigation on account of their linguistic approach.⁶ Austin also produced a version of the correspondence theory of truth, which Kirkham discussed along with Russell's theory in his recent book *Theories of Truth*, resulting in Kirkham giving the correspondence theory a clean bill of health. Today this realist tradition is represented most noticeably by David Armstrong – truth makers play a central role in *A World of States of Affairs* – but also by other writers such as John Bigelow, Robert Pargetter, Peter Forrest, Reinhardt Grossmann, Fraser MacBride, George Bealer, and Michael Tooley. Some of these are Platonists, while others are immanent realists, though I suspect that the immanent realists would have a greater tendency to be interested in truth makers and the details of the correspondence theory of truth.⁷

This chapter is a tale of two views and two traditions, two approaches to metaphysics, two views of universals, and two views of truth. The problem of universals has to do with things in our world that are repeated or appear to be repeated; though some people, including Armstrong, have called it *the* problem of the one and the many, there are, in fact, a number of related issues:

1. Property possession. What is it for a particular to have a property; for example, what is it for *a* to be circular or what is it for *a* to have circularity?
2. Qualitative identity. What is it for two particulars to have the same property, or what is it for several particulars to have something in common, or for several particulars to be the same in a certain respect?
3. General words. What do predicates refer to, and what do the corresponding singular terms refer to? In virtue of what does a predicate apply to a

5 Ayer, "Individuals".

6 And Austin was less happy about universals than Strawson.

7 The logical positivists rejected universals, and it is generally assumed that Wittgenstein did, also, in his later works (but see Fahrnkopf, *Wittgenstein on Universals*). Urmson says that there were two reasons for the downfall of logical atomism (which involved belief in universals): the general rejection of metaphysics under the influence of logical positivism and the discovery of a number of flaws in the metaphysics of logical atomism (*Philosophical Analysis*, pp. 99 and 129). The realist tradition of Russell and Moore, though it has persisted as a minority view, has also been submerged by other interests and traditions, particularly, the interest in language and the nominalist tradition started by Quine and Goodman (of *The Structure of Appearance*).

particular, and what explains the fact that one predicate can apply to several particulars?⁸

4. Resemblance. What explains the fact that particulars resemble each other?⁹
5. Classes. What explains the unity of classes?¹⁰
6. Causation. In virtue of what do particulars participate in causation?¹¹
7. Laws. In virtue of what do particulars behave in similar ways in similar circumstances?

To what extent are these issues metaphysical and to what extent are they linguistic? This question can be considered by discussing a recent critique of the very idea of a problem of the one and the many. Alex Oliver claims that there are three possible ways of interpreting the problem of the one and the many that Armstrong claims to answer: “First, the request is for a conceptual analysis, there being two candidates for analysis. Second, the request is for a specification of the ontological commitment of the sentences. Third, the request is for a specification of the truth makers of the sentences.”¹² He thinks that the though the second is the most important, it is unfortunately not clear how anyone could proceed from “a specification of the ontological commitment of the sentences” to the existence of universals. If anyone tried to proceed in that way, he would be right to be sceptical.

The term ‘ontological commitment’ is associated with Quine, who thinks that when we quantify over things we thereby show our *ontological commitment*, namely, that we take those things to be objects. Although he maintains that quantification is a device for talking about objects, Quine does not explain what objects are nor why he imagines there is a connection between objects and quantification. The link is apparently

8 Although it is quite possible that one predicate token should be applied to more than one particular, predicate tokens are not normally moved from sentence to sentence, except in fridge magnet poetry. Nominalists and realists should be able to agree that predicate tokens apply to particulars in virtue of being tokens of a certain type. Where realists differ from nominalists is in the account they give of what it is for predicate tokens to be examples of a predicate type. It is controversial whether predicate types apply to particulars. It is an idea that I reject, and one that nominalists should reject.

9 Resemblance is ambiguous. Particulars are said to resemble each other both if they appear to be alike or if they are actually alike. Since the second is equivalent to having something in common or qualitative identity, I take the first to be the standard meaning of ‘resemblance’. When particulars appear to be alike, they are behaving in similar ways in similar circumstances, which is, in fact, an example of 7.

10 I do not think that the unity of classes is ever explained by what the members of the class have in common, but some people do.

11 If events were the terms of causal relations, then properties would be significant components of events.

12 Alex Oliver, “The Metaphysics of Properties”, p. 50.

that quantification can only be over things with sufficiently clear criteria of identity – how clear is not clear; and it just turns out that the only things with sufficiently clear criteria of identity are “objects”. Frege, on the other hand, thinks that (1) we may conclude that the world is divided into objects and concepts because of the role played by proper names and predicates in language, and he thinks that (2) we may also infer that things of a certain type (e.g., numbers) are objects because we use singular terms to refer to them. In both cases, language does not merely show ontological commitment; examining language is a way of determining what there is.¹³

Oliver claims that Armstrong’s principal reason for concluding that there are universals is because the sentences of ordinary language can be seen to carry with them a certain ontological commitment. Oliver apparently ascribes to Armstrong a view, loosely based on Quine and Frege, that the use of a singular term shows ontological commitment to the existence of an entity, permitting the conclusion that there are such entities – for Armstrong does conclude that there are such entities as universals. Oliver thinks that Armstrong argues as follows: if ‘*a* is *F*’ is equivalent to ‘*a* has the property *F*’, then since the second sentence contains an abstract singular term, which must refer to something, the predicate in the first sentence must refer to the same thing.¹⁴ Therefore, they both carry the same ontological commitment, and consequently the use of sentences such as ‘*a* is *F*’ and ‘*a* has the property *F*’ equally carry with them an ontological commitment to properties as entities.

But Armstrong argues in no such way, because he is a stranger to any sort of linguistic approach. He is not interested in the ontological commitments that are supposed to be encapsulated in language; he is interested in what there is. He does not infer his immanent realist account of

13 Frege also gives an essentially linguistic explanation of what objects and concepts are.

14 Oliver, “The Metaphysics of Properties”, p. 56. There is a dispute as to whether a predicate such as ‘is circular’ refers to the same thing as the corresponding singular term, namely, ‘circularity’. Russell thought there was such a distinction: he called the reference of the singular term an *abstract relation* and the reference of the predicate a *relating relation* – for properties we could talk about an *abstract property* and an *instantiated property*. According to this distinction, when it said that a certain particular is circular, what is being referred to is the instantiated property not the abstract property. Alex Oliver is mistaken in thinking that when Armstrong paraphrases ‘*a* is circular’ as ‘*a* has the property of being circular’, he is doing anything other than paraphrase. The sentence ‘*a* is circular’ is about property possession, however property possession is construed. In Chapter 4, Section 4.4, I argue that there is no such ontological distinction, and that terms of both types refer to the same thing.

universals from the structure of language: he puts it forward as a metaphysical hypothesis about what there is that explains certain things and explains them better than the alternatives, and part of the argument is that the varieties of nominalism do not do a good job in explaining those things. His claim about the different kinds of nominalism is that their analyses have neither explained the general in terms of the particular nor accounted for causality. It is not part of immanent realism as a metaphysical hypothesis to claim that every predicate that truly applies to a particular refers to a universal. It does not give an analysis of any sort for all sentences of the type '*a* is *F*', and does not regard all such sentences as involving ontological commitment. Armstrong was within his rights to consider analyses of "*a* has the property *F*" for all cases of property ascription when considering the different kinds of nominalism, because nominalists, unlike him, apparently do have such analyses that apply to all property ascriptions.¹⁵ As an hypothesis about what there is, immanent realism is also an hypothesis about what makes sentences and propositions true, but merely because what makes sentences and propositions true must be explained by what there is. To what extent immanent realism provides a conceptual analysis other than by explaining what there is is difficult to say, though it certainly does not provide a single conceptual analysis for all sentences of the form '*a* is *F*'.

The question about what there is includes: are there repeatable things that could be the references of predicates, be possessed by a number of particulars, and so on, and so on? It also includes: are there abstract things that could be the references of predicates, be possessed by a number of particulars, and so on, and so on? Because of the plausibility of these proposals, the problem can be called the problem of the one and the many. The 'and so on, and so on' stands for a number of problems that properties could be used to solve; and it is very likely that different accounts of properties will vary in the way that they solve some of these problems directly in terms of properties and leave other problems to be explained in other ways. These are genuine problems, but for Armstrong at any rate their solution does not proceed by seeking to give a conceptual analysis of the sentence '*a* is *F*' or by trying to detect what it commits us to ontologically, as though the ontological commitment were contained

15 In *Nominalism and Realism*, Armstrong considers four different types of nominalism in terms of how they explain "a has the property, F" – he does not focus on explaining the use of sentences such as '*a* is *F*' and '*a* has the property *F*'. For example, on page 13 predicate nominalism is credited with this analysis: "a has the property, F, if and only if a falls under the predicate 'F'."

in the linguistic form. It is a matter of considering and comparing the ontological options.

Oliver also says, “The obvious way to determine whether properties exist is to determine the ontological commitments of the theories we hold to be true”, and apparently he projects this view on Armstrong.¹⁶ But again this turns Armstrong into Quine. Armstrong is not interested in the ontological commitments encapsulated in scientific theories as shown merely by what such theories take to be properties – is this just a matter of identifying the predicates in the theory? He regards scientific theories as showing us which things are causally significant properties and therefore real.¹⁷

1.2 THEORIES OF UNIVERSALS

There are two classes of answer to the problem of universals, nominalism and realism, each with a number of different forms. According to realism, property possession is the possession by a particular of a literal property, where properties are real things and, in the case of immanent realism, features of particulars. When realists say that a particular possesses a property, they speak literally in the sense that they regard a particular as an entity and they regard a property as an entity and they claim that the first entity possesses the second entity. Several particulars can literally be the same in a certain respect, since the certain respect is a property; and several particulars can literally have something in common when they possess the same property or a similar property. Predicates can refer to properties, and one reason why one predicate can apply to several particulars is because those particulars all possess the same property. Particulars resemble each other in the sense of looking alike, for the simple reason that they are alike, in that they possess the same property or similar properties. The causal role of particulars is explained by the causal powers of properties that are possessed by particulars; and the similar behaviour of numerically different particulars in similar circumstances is explained by the fact that they possess the same property or similar properties. Causation and lawlike behaviour are conceptually distinct, however, since it is conceivable that there be examples of causation that do not involve lawlike behaviour as in singular causation, and it is possible that there be examples of lawlike

16 Oliver, “The Metaphysics of Properties”, p. 58.

17 For discussion of the issue of how we determine which things are real, see Chapter 2, Section 2.4.

behaviour that are not directly about a causal link.¹⁸ Formally, we can say that realism about universals affirms that they are real things (where causally significant things are at least good examples of real things) that can be simultaneously (1) properties possessed by particulars, (2) references of predicates, and (3) involved in truth-making for sentences or propositions.

Although nominalists must admit that we speak truthfully about property possession, about particulars having something in common, and about particulars being the same in a certain respect, they regard them merely as related ways of speaking that are not to be taken literally. They deny the literal existence of the things affirmed to exist by realists. Nominalism about universals starts by denying that there are real things that can be simultaneously (1) properties of particulars, (2) references of predicates, and (3) involved in truth-making for sentences or propositions.¹⁹ Particularism also denies that there are real things that meet all three conditions, because for particularism the characteristics of particular things (tropes) are themselves particulars, so that although there is a sense in which particulars possess properties, those things are not the references of predicates. For nominalism proper, there are general words, perhaps general concepts, and

18 The principle of equivalence in general relativity is not directly about a causal link, though it may also be possible to give a causal explanation of any particular application of the principle (example given by Wesley Salmon). The principle of conservation of momentum is also not directly about a causal link, but any situation explained by the principle will involve a causal interaction.

19 I use ‘nominalism’ for the types of nominalism analysed by Armstrong in *Nominalism and Realism*, chaps. 1–5 – nominalism about universals, which, despite being unsympathetic, gives a systematic analysis of the varieties of nominalism. In the “North American or Quinean sense”, nominalism is the denial of the existence of abstract or Platonic objects – nominalism about abstract objects. Nominalism about universals implies that only particulars exist, but it is not possible to define nominalism as the doctrine that only particulars exist, because Platonism also implies that only particulars exist, if Platonic forms are taken to be particulars. Others call particularism ‘nominalism’ and use the term ‘extreme nominalism’ for the four types of nominalism described by Armstrong. Although one of the classes of class nominalism is objective and could be involved in truth making, it could not be a property of a particular, and it could not be the reference of a predicate, since property possession, or predication, is not class membership. Class nominalism is similar to Platonism, in that it analyses property possession in terms of a relation with an objective entity, and could as a consequence claim to have a realist conception of truth, particularly if it could also establish that classes were real entities. Property possession is explained in terms of class membership, which is a relation between two particulars, corresponding to which there is a relational fact that has the particular, the class, and the relation of membership as components. An important difficulty for the class nominalist is that the relation of membership would itself have to be understood as a class. Given that class nominalists can construct a relational fact in this way, there would then be a fact associated with property possession, but it is difficult to see it as the fact of the object’s possessing a certain property because the fact is a fact of class membership, not property possession.

there are certainly classes and, for some, perhaps inconsistently, genuine resemblance relations, but there are no literal properties that are possessed by particulars. Nominalists regard particulars as entities but they do not regard properties as entities, and therefore property possession for them is not the literal possession of one entity by another. When nominalists say that a particular possesses a property, they may speak seriously, but they do not speak literally in the sense in which the realists speak literally. There are, however, a number of different ways of speaking literally, and nominalists may well be able to make a case that ordinary language presupposes nothing of the realists' form of literalism.

The difficulty for nominalism lies in explaining what is being said when we speak truthfully about property possession and qualitative identity. Some nominalists explain property possession as nothing other than a particular's falling under a predicate (predicate nominalism), others as nothing other than a particular's falling under a concept (concept nominalism), and yet others as nothing other than a particular's being connected in a certain way with other particulars – either by being a member of a certain class, where there is nothing more to be said about that class (class nominalism), or by resembling certain other particulars that also form a class (resemblance nominalism).²⁰ Although it cannot be said that there is an official position, many nominalists would say that laws are just regularities: they are regularities concerning property possession, where property possession is explained by one of the types of nominalism.²¹ And many nominalists would say that causation is just a matter of lawlike behaviour, where laws are just regularities; or they might give a counterfactual analysis of causation, or combine an explanation in terms of laws with a counterfactual analysis.

Armstrong's classic critique of the various nominalist accounts of property possession is based mainly on regress arguments, which do not work in the same way for each version of nominalism.²² There are two types of regress argument, one involving an object regress and the other involving a relation regress, but both having to do with explanations: they attack versions of nominalism by trying to show that they have not explained the

20 This is the classification given by Armstrong in *Nominalism and Realism*, chaps. 1–5.

21 Evan Fales comments: "And yet when it comes to knowing what these regularities are, many feel the paradoxicality of projecting grue-like predicates. But if predicate nominalism is true, what regularities there are seems to be a function of what our predication-practices will be. For a nominalist to suggest that there are regularities *there* would seem to invite a regress."

22 For detailed accounts of regress arguments, see Armstrong, *Nominalism and Realism*, chaps. 1–5.

general in terms of the particular. The idea is to show that at no stage in the regress is there an explanation of the general in terms of the particular, and that the series as a whole does not constitute an explanation of the general in terms of the particular. They do not depend on a rejection of actual infinities. The arguments can be understood as involving a form of mathematical induction: if stage one does not explain the general in terms of the particular and then going to stage two does not explain the general in terms of the particular, either, then it follows that no stage explains the general in terms of the particular, since stage $n + 1$ is constructed from stage n in exactly the same way that stage two is constructed from stage one.

Armstrong also criticised each form of nominalism on the grounds that it could not account for causality. Applied to predicate and concept nominalism, according to which properties are dependent on the classifications we make, his argument takes the following form:²³

1. There are causes in nature.
2. The causal order is independent of the classifications we make.
3. What causes what depends upon the properties of the cause and the properties of the effect.
4. Therefore, properties are independent of the classifications we make.

The following is a related argument:

1. What causes what is independent of human language and human thought.
2. What causes what depends on properties.
3. Therefore, properties are independent of human thought and language.
4. Therefore, there are properties in the world.

Applied to class and resemblance nominalism, Armstrong's argument that they cannot account for causality can be presented as follows:

1. In a causal relationship the particulars involved act solely in virtue of their properties.
2. For class and resemblance nominalism the possession of a property consists in a connection with other particulars – class membership or resemblance.
3. But it is inconceivable that the causal efficacy of one particular should be dependent on other, possibly very remote, particulars.²⁴

23 Armstrong, *Nominalism and Realism*, pp. 22–23.

24 What makes this so inconceivable is that the other members of the class could be very near or very far removed from the particular, and yet the causal powers of that particular are supposed to remain exactly the same wherever the other members of the class are.

4. Therefore, property possession cannot consist in a connection with other particulars.

The argument against predicate and concept nominalism is an argument for realism, that properties are objective and real, where the most likely view is that they are characteristics of ordinary particulars as opposed to characteristics of events, though they could figure in events.²⁵ The argument against class and concept nominalism is an argument for another aspect of realism, that property possession by a particular is specific to that particular and does not involve other particulars. Indeed, it does seem reasonable to suggest, though there are philosophers who have denied it, that the causal powers of a particular are independent of persons and their thoughts and actions, and independent of other particulars, even particulars of the same type.

Nancy Cartwright also argues for a general realism about properties. While taking particular care to avoid any specific metaphysical doctrines, she makes a general, cumulative case from science for the existence of what she calls factors and their capacities, where factors are in effect properties and capacities are their causal powers, and she emphasizes that causal explanation depends on the stability of capacities.²⁶

Indeed, physical science itself reveals a world in which there are causal interactions, such as forces and exchanges of energy that are related to the properties of physical objects. For example, if two bodies are exchanging heat energy, the rate of flow of heat energy from one to the other will depend upon a number of factors, but principally upon the temperatures of the bodies. It would be implausible to suggest that the bodies were real enough but that the energy exchanged between them was not, or to suggest that the energy exchanged was real, but not the properties that control it. With all due respect to Hume, although it is conceivable that a world of impressions might work without causal relations between impressions – though it would be fair to ask what caused the impressions – it is very difficult to understand how a world of physical objects could operate without causal interactions of some sort.²⁷ And it is very difficult to

25 For an argument that events are not the terms of causal relations, see Newman, *The Physical Basis of Predication*, chap. 7. Physical objects are the most obvious example of ordinary particulars.

26 Cartwright, *Nature's Capacities and Their Measurement*. See Newman, "Critical Study" thereof.

27 "The scenes of the universe are continually shifting, and one object follows another in an uninterrupted succession; but the force, which actuates the whole machine, is entirely concealed from us, and never discovers itself in any of the sensible qualities of bodies."

understand how those causal interactions could not depend on the natures of physical objects and therefore upon their properties.

Philosophers such as Frege and Armstrong have used causality itself as the criterion for reality. For Armstrong, being causally significant, or making a difference to something causally significant, is the criterion for being real, implying that not all predicates correspond to genuine properties, which is a version of the “sparse” view of properties. The sparse view is opposed to the abundant view of properties, which is that to every predicate there is a universal that corresponds to it: they “carve up the world not only at the joints but every which way”,²⁸ which suggests that the world is divided in an arbitrary fashion.²⁹ But it is conceivable, even on a sparse view of properties, that the class of real properties should be broader than the class of causally significant properties; what is not conceivable is that the class of causally significant properties should not be included in the class of real properties.

1.3 PREDICATION, PARTICIPATION, AND INHERENCE

There are two main forms of realism, the Platonism or transcendent realism of Plato, Frege, and a number of contemporary philosophers, such as Plantinga,³⁰ and the immanent realism of the later Russell, Armstrong, and perhaps Aristotle. For Platonism, a property is a single thing that exists in another realm, such as the Platonic heaven where it would be a form, or Frege’s third realm where it would be a concept, or in a realm just known as the world of abstract things. For immanent realism, a property is a universal, which is a single thing that can occur instantiated by many particulars at the same time, and is something that occurs, or is found, only if it is instantiated by a particular, hence “immanent” realism.

Hume, *An Enquiry Concerning Human Understanding*, VII, Pt. I. Evan Fales argues that, contra Hume, causal powers can be sensed; see *Causation and Universals*. Armstrong takes the same view. Physical science reveals a world of causes and causal powers; in Newtonian mechanics, for example, forces are causal relations and bring things about. Of course, under Ernst Mach’s Hume-inspired interpretation of Newtonian mechanics, there are no such things as forces. For a discussion of causality in elementary physics, see Newman, *The Physical Basis of Predication*, passim.

28 Fraser MacBride, “Where Are Particulars and Universals?”, p. 219.

29 As one might expect, the case for abundant universals involves considerations concerning language. See *ibid.* When MacBride wonders (p. 220) whether it is absurd to imagine that there are countless abundant properties, surely, the answer is that there is reason to believe that the causal powers of particulars are limited.

30 See also Bealer, *Quality and Concept* and “Universals”, and Loux, *Substance and Attribute*.

Platonism has not been popular for nothing. It is, in fact, a theory with a number of striking virtues. It has a simple plausible explanation for many of the things that a theory of universals is supposed to explain, such as property possession, having something in common, the stability of properties, resemblance, and the references of predicates. It explains all these in terms of a single, unchanging form, referred to by a predicate, and which a number of particulars can be related to. The difficulty with Platonism is not that it does not do its job well, but lies with certain conceptual difficulties. Quite apart from having to face a well-founded distrust of other realms, there are regress arguments directed at forms, and there are serious problems associated with the nature of the relation that is supposed to exist between a particular and a form. Some of these objections have been known since ancient times.³¹ Armstrong has made great use of regress arguments in his criticism of nominalism, but the first regress argument, the third-man argument, was invented by the first realist as a criticism of his own theory of forms; and the first use of the relation regress argument, which Armstrong also makes much use of, was by Gilbert Ryle, a sympathizer with Plato, in a criticism of the theory of forms.³² This is the relation regress argument: A relation of “participation” is required to bind a form to a particular, and given the separation of form and particular, it seems that it must be a serious relation with some serious work to do. Platonists aim to explain generality, such as what several particulars have in common, in terms of a relation with a single entity, namely, a form. But this explanation itself involves generality, since there are as many instantiations of the relation of participation as there are particulars. By the same reasoning, each of these instantiations of the relation of participation must be explained in terms of participation in the first-order form of participation. These cases of participation in the first-order form of participation must be further explained in terms of participation in the second-order form of participation, and so on, *ad infinitum*. At no stage in the regress is generality eliminated and completely explained in terms of single entities such as forms. On the other hand, if it were suggested that the second-order form of participation was the same as the first-order form of participation, then first-order participation would be explained in terms of itself, which is circular.³³

31 See Plato, *Parmenides*, and Gail Fine, *On Ideas*, which is about Aristotle’s work of the same name.

32 Ryle, “Plato’s *Parmenides*”. For regress arguments directed against forms, see Armstrong, *Nominalism and Realism*, chap. 5.

33 Armstrong, *Nominalism and Realism*, p. 70.

The basic idea of a form is that it is something that exists independently of the particulars that participate in it, and, in fact, exists prior to all particulars. For this reason it is right to say that a form is *separate* from a particular that participates in it, and is not merely distinct from it; for if a form were merely distinct from a particular that participated in it, then the theory would be equivalent to immanent realism.³⁴ But the difficulty with this separation of forms from particulars is that it makes it extremely difficult to see how a form could be relevant to a particular. It also makes the relation between form and particular somewhat mysterious, and it makes mysterious the knowledge that we, inhabitants of the spatio-temporal world, have of forms.

If the relation between a particular and a form were imitation, which is an asymmetric relation, or resemblance, which is a symmetric relation, then a form would merely be another particular with the same status as the particulars in this world and its existence would appear to be irrelevant to whether a particular had a certain property or not. The traditional third-man argument also depends on a form being the same type of thing as a particular. For these reasons, Platonists should recognize that forms are a different type of thing from the particulars that participate in them: the form of man is not a man and the form of a circle is not a circle, from which it follows that the form of a circle is not circular, which makes forms appear to be even more mysterious.³⁵

Platonism appears to regard a particular with a number of properties as “a meeting place of a variety of insubstantial, ghostly projections of other objects”;³⁶ a particular appears to go around with a number of curious links to another realm. Because of these links to things in another realm, it is natural to suppose that there must be something about the particular itself, some feature, in virtue of which it participates in a certain form, or something about it that is the result of such participation. That particulars

34 Nettleship has an attractive description of forms that tries to make them less transcendent, but he seems to evade the issue of separation: “the form in every case is that which is constant under variation, and it is that what the man of science is always trying to get at. To the ordinary mind it seems at first unreal, less real than the ordinary view of things as they appear, the sensible world; but the world of what Plato calls forms, is not a second, shadowy, unreal world, it is the same world better understood.” *Lectures on the Republic of Plato*, p. 195. Occasionally, Plato has been interpreted as an immanent realist; but see *Phaedrus* 247, which talks about forms inhabiting “the heaven which is above the heavens”. See also Aristotle, *Physics*, 203^a 8, “the Forms are not outside, because they are nowhere”.

35 Armstrong, *Nominalism and Realism*, pp. 71–72. Evan Fales remarks that if the form of a circle were circular that would be *really* mysterious: a (first-order) form having itself as a (second-order?) property?

36 McPherran, “Plato’s Particulars”, p. 528.

in this world interact causally with other particulars in this world also seems to lead to the conclusion that particulars have such features. If so, then Platonism needs another theory of universals, a theory about the actual features of the particular, in other words, a theory of immanent characteristics. In fact, a number of Plato scholars claim, partly on the basis of a passage in the *Phaedo* (102), that Plato was a particularist as well as a Platonist.

Intuitively, we imagine that the relation between a form and a particular is a productive one, that a form is somehow responsible for the feature that a particular has.

The half-expressed thought behind the word 'productive' is that the relation is a species of causal relation. (Unless, indeed, it is that the Form is actually present in the particular.) But the causal relation demands a cause and an effect, each having their own properties. So it cannot be used to give an account of what it is to have a property.³⁷

And as Armstrong points out, what is needed is that the form's relation to a particular be constitutive rather than merely productive; and once the difference between a productive relation and a constitutive relation is grasped, and the relation between a form and an object is understood to be constitutive, then we have moved from transcendent to immanent realism, thereby avoiding a number of difficulties.³⁸

One option for the Platonist faced with these difficulties is to suggest that the relation between a particular and form is a *sui generis* connection, which should not be thought of as an ordinary relation, certainly not a real relation, but is such that it does all that is required of it. Since every theory requires some primitive notions, there is nothing to be ashamed of in a primitive notion. Another option is to make use of Frege's ideas about concepts as functions, which are unsaturated things and as such do not require further relations to bind them to particulars – Ryle thought Plato had need of Frege's ideas. Although he speaks of a third realm, Frege does not actually locate concepts in a different and remote place, nor does Plato always emphasize this, but insists rather that they are public things that exist independently of thought, and are grasped by the mind and not sensed. The issue here, though, would be whether this way of putting it does anything to avoid the problems associated with separation.

Plato's own reaction to objections to the theory of forms, a number of which he himself presents in the *Parmenides*, was to be strong-minded

37 Armstrong, *Nominalism and Realism*, p. 68.

38 Ibid., pp. 68–69; cf. Newman, *The Physical Basis of Predication*, pp. 71–72.

about the need for forms:

If, in view of all these difficulties and others like them, a man refuses to admit that forms of things exist or to distinguish a definite form in every case, he will have nothing on which to fix his thoughts, so long as he will not allow that each thing has a character which is always the same, and in so doing he will completely destroy the significance of all discourse.³⁹

To this the contemporary realist might add that in order for there to be causality, there must be properties of some sort. Perhaps contemporary believers in properties as abstract things implicitly follow Plato in thinking that the advantages of their position outweigh any arguments against.

Immanent realism, on the other hand, participates in many of the virtues of Platonism, while avoiding all the conceptual difficulties associated with the separation of form and particular. Universals easily explain such things as property possession, having something in common, the stability of properties, resemblance, and the references of predicates. A universal is like a form in being a single, unchanging thing that is referred to by a predicate. But unlike forms, universals are not separated from the particulars that possess them, but constitute them in some way. The universal circularity is the circularity that a particular can possess in this world. And there is no need of a second theory of universals as there appears to be with Platonism.⁴⁰

39 Plato, *Parmenides* 135C. Parmenides is speaking to the young Socrates.

40 Although most people introduce universals by means of one rule that applies to them, there are, in fact, a number of rules that characterize universals and particulars. *Instantiation*: Universals and particulars represent two distinct categories of thing that can be related by “instantiation”, which is asymmetric: a particular can instantiate a universal, while a universal cannot instantiate a particular. *Multiple instantiation*: A universal can be instantiated by an indefinite number of particulars (of the right kind) at the same time; and a particular can instantiate many universals at the same time – depending on the nature of the particular. *Mutual dependence*: A universal can occur only when it is instantiated by a particular, and a particular cannot occur without instantiating universals. *Multiple location*: A universal can occur as a whole at many different places at the same time, while a particular can occur at only one place at a given time. And then there are rules about the ways that universals are arranged into kinds, according to their valence (i.e., adicity – monadic, dyadic, etc.), their order (first-order, second-order, etc.), and level, i.e., whether they are determinates or determinables. There are also rules about universals and particulars remaining things of the same type and possibly a rule that all things are either particulars or universals. Frege’s concepts and objects and Plato’s forms and appearances satisfy some of these rules, but not *multiple location* or *mutual dependence*. Using some of these rules (e.g., *instantiation*, *multiple instantiation*, perhaps *mutual dependence*, and rules about valence and order), it would be possible to explain the difference in dimensionless realms between non-predicative entities (subjects of predication only) and predicative entities. The reason for talking about “occurrence” is that one can say that a particular can *occur* only once and a universal can *occur* many times.

There are also a number of conceptual difficulties associated with immanent realism, a number of which have been discussed recently by Fraser MacBride in three penetrating but not unsympathetic articles about the nature of universals and particulars.⁴¹ There are difficulties associated with the very notion of the multiple location of universals and with the notion of inherence. A particular is a single thing that can occur only once at any given time, while a universal, representing an entirely different category of thing, is a single thing that can occur at many different places at any given time (multiple location); and although many claim to find this notion incoherent, it is not strictly speaking contradictory. A universal is one thing in the sense that the property of one particular can be the same as the property of a different particular: for example, the shape that is instantiated by this particular is, or could be, the same shape that is instantiated by that particular. A universal is a single thing only in the sense that it is one nature, and it is something multiple only in the sense that it can be instantiated by many particulars; it is one thing in one way and possibly multiple in another way. There would be something contradictory only if it were one thing and possibly multiple in the same way.⁴²

The relation between a universal and a particular is called inherence, the difficulties associated with it being the problem of predication for immanent realism. The charge will be that inherence is a relation that also falls prey to a relation regress. The reply is that though inherence is called a relation, it is really a courtesy title: either inherence is not a real relation or, strictly speaking, universal and particular are not bound together by a relation – or, if you like, universals are not bound together by a relation to form a particular.⁴³ The idea that universal and particular can be bound together without the need for an intermediary relies, in effect, on Frege's notion of the saturated and the unsaturated. It is not good enough to criticize the notion of unsaturatedness by calling it an empty metaphor, the ancient charge laid against participation, since there

Occurrence and existence are the same thing for a particular but occurrence and existence are not the same thing for a universal; immanent realists are divided among themselves about what it is for a universal to exist.

41 MacBride, "On How We Know What There Is"; "Where Are Particulars and Universals?"; and "Could Armstrong Have Been a Universal?". See also Alex Oliver, "The Metaphysics of Properties".

42 For a discussion of further difficulties with multiple location, see MacBride, "Where Are Particulars and Universals?".

43 The term 'real relation' is used here in a general sense and may include mediaeval formal relations as well as mediaeval real relations, depending on your interpretation of formal relations.

must be some things that are bound together without the need for an intermediary. Otherwise no things would ever combine together to form a whole. If an intermediary were always required to combine two things, then the attempt to combine any two things leads to an infinite number of intermediaries, with no things actually combined, leading to either monism or monadism.⁴⁴ This regress is vicious, since at no stage are any things actually combined; even if it were extended to infinity the net result would still be the same, that no things are actually combined.

Frege's suggestion, in essence, was that there were two distinct classes of thing and only two such classes. Members of the first class, saturated things, were capable of combining with members of the second class, unsaturated things, without the need for any intermediary, but the members of the first class were not capable of combining with each other without a member of the second class as an intermediary. Immanent realism follows this pattern precisely with two different fundamental categories of thing: particulars, which are saturated things, and universals, which are unsaturated things.⁴⁵

1.4 UNIVERSALS, TRUTH, AND DEVITT

Consider a simple predicative sentence that says that a particular possesses a certain property; consider, for example, 'Socrates is snub-nosed', which for the sake of simplicity we shall represent by '*Fa*'. On any view, one of the conditions for the sentence to be true is that the proper name '*a*' should refer to a unique particular in the world, the particular that the sentence is about, namely, Socrates. From the point of view of realism about universals, it is equally plausible to suggest that another condition for the sentence's being true is that the predicate '*F*' should refer to a unique property, the one that the sentence ascribes to the particular, namely, being snub-nosed. There are other things to say about the conditions for the truth of predicative sentences, but their precise formulation need not concern us at the moment. Realism nevertheless recognizes that there are predicative sentences that are accepted as true in which the predicate does not refer to anything, in the same way that there are true sentences in

44 It would have to be a particularly severe form of monism or monadism, as well, since the entities involved would have to be simple, much in the way God is supposed to be simple according to the doctrine of divine simplicity of Aquinas and the Fourth Lateran Council—the attributes of a particular would have to be identical with each other and in this case with the particular itself.

45 This approach could be adopted by Platonists; after all, Frege was a sort of Platonist. However, unmediated combination makes more sense where there is no separation of the terms. There are, of course, a number of other rules concerning combination.

which the proper name does not refer to anything; but for realists an explanation would be required of what it is that makes such sentences true. The sentence ‘the economic climate is healthy’, for example, though neither predicate nor proper name refer to anything obviously real, is not true by convention; it is true on account of some conditions actually holding in the world that are related in some indirect way to the components of the sentence.

Realists find it difficult to understand how a simple predicative sentence could be true when the predicate does not refer to anything. It is reasonable to suppose that there is something about a particular, something real, in virtue of which a simple predicative sentence about a particular is true; in other words, there is something about the world that makes the sentence true. In the case of the sentence ‘Socrates is snub-nosed’, there is something about Socrates, namely, the shape of the front part of his face, that makes the sentence true. This is a way of thinking that comes naturally to realists about universals (as it does to particularists), especially those who regard universals as immanent characteristics that exist in the world alongside particulars, though those who regard properties and relations as abstract things would think in a similar way. This way of thinking, however, is alien to nominalists. The central tenet of nominalism is that though a particular itself is a real thing, a particular does not possess any real features of any sort, so that there is nothing for predicates to refer to – even the classes of class nominalism are not the references of predicates, since they are not the sort of thing that a particular could be said to possess.⁴⁶

In the case of the sentence ‘Socrates is snub-nosed’, represented for simplicity by ‘*Fa*’, realists will say that it is true in case the particular *a* possesses the property *F*, where the property *F* is something that exists in the world and is referred to by the predicate, though its existence is quite independent of whether the predicate refers to it or not. Nominalists are also happy to say that the sentence ‘*Fa*’ is true in case the particular possesses the property *F*, but by ‘property possession’ the various types of nominalist mean something quite different from what realists mean. For predicate nominalism, to take what appears to be a prominent version, that a particular possesses the property *F* is nothing other than that the predicate ‘*F*’ applies to the particular. But the predicate ‘*F*’ applying

46 Nominalists could talk about a sentence being made true by a fact. But their talk about facts would not have any ontological significance, since they do not have the resources to explain the distinction between a particular and a fact as a real unit.

to the particular a is equivalent to the predicate ' F ' being true of the particular a , which differs very little from the sentence ' Fa ' being true. The difficulty is that when predicate nominalists agree that the sentence ' Fa ' is true in case the particular possesses the property F , which sounds sensible enough, they are, in effect, agreeing that the sentence ' Fa ' is true in case the sentence ' Fa ' is true.

Armstrong accused philosophers such as Quine of being nominalists by default, without having really come to grips with the problem of universals, in effect of sticking their heads in the sand.⁴⁷ In a sense, Armstrong is right. Quine does not approach the problem of universals from the point of view of the problem of the one and the many, or by discussing each, or indeed any, of the seven issues concerning general aspects of the world mentioned at the beginning of this chapter as an analysis of "the problem of universals". Quine's ontology focuses on quantification. His main thesis is that a properly formulated theory should quantify only over the things that it takes to be objects, quantification being a device for talking about objects; and, in addition, it should quantify only over things that are sufficiently clearly marked off from each other, in other words, only things with a sufficiently clear criterion of identity can be quantified over. Speaking generally, we cannot know what something is without knowing how it is marked off from other things.⁴⁸ In Quine's judgement, intensions, concepts, universals, and all similar things fail to be sufficiently well marked off from each other, and consequently do not have clear criteria of identity, and are all creatures of darkness. However, in spite of Quine's vehemence, and in spite of his influence, the point that they are all insufficiently well marked off from each other is largely made by assertion.⁴⁹

Michael Devitt rose to the defence of Quine and gave an explicit defence of predicate nominalism. He argued that it is possible to explain

47 Armstrong mentions ostrich or cloak-and-dagger nominalism in *Nominalism and Realism*, p. 16.

48 Quine, *Ontological Relativity*, p. 55.

49 For a criticism of Quine's views, see Newman, *The Physical Basis of Predication*, chap. 2, sec. 3. It seems to be a matter of accident that the things that Quine judges are sufficiently clearly marked off from each other are all examples of what many philosophers call 'objects'. It is clear from the nature of some of these objects, e.g., numbers, that they need not be marked off from each other in a physical or spatial way; physical objects merely provide a paradigm case of things that are clearly marked off from each other. Things that can be quantified over can also be members of sets, taken in groups they can be counted, and taken individually they can be the subject of singular reference, and all of this can be done without ambiguity. But reference to a particular depends on its falling under a sortal, and the sortal has to be well defined.

the truth of sentences without reference to universals, or realistically conceived properties of any type.

The Quinean sees no problem for the Nominalist in the likes of (3) [i.e., ‘*a* is *F*’] because there is a well-known semantic theory which shows that (3) can be true without there being any universals:

(3) is true if and only if there exists an *x* such that ‘*a*’ designates *x* and ‘*F*’ applies to it.

So (3) can be true without the existence of *F*-ness. There is no refusal here ‘to take predicates with any ontological seriousness.’ The Quinean thinks that there really must exist something (said as firmly as you like) that the predicate ‘*F*’ applies to. However that thing is not a universal but simply an object.⁵⁰

Tarski’s theory of truth, which is what Devitt is appealing to here, is indeed well known and has been influential. But the important part of Tarski’s theory, its contribution to semantics, has to do with compound sentences, not with predicative sentences; indeed, it is likely that Tarski himself was not interested in the problems, metaphysical or otherwise, associated with the truth of predicative sentences. Whatever authority is possessed by Tarski’s theory of truth, it cannot be appealed to here, since the little that his theory has to say about predicative sentences Devitt himself has stated.

Is the truth of a predicative sentence explained by the fact that the particular referred to satisfies the predicate? Truth and satisfaction are certainly linked, and you could use the satisfaction of the predicate as a condition for the truth of a sentence in a piece of semantic theory, though to do so would be bypassing some of the metaphysical issues concerning truth. On the other hand, you could equally well claim that the satisfaction of the predicate by the particular is explained by the truth of the sentence.

Devitt’s position gives us two pieces of language that signify a particular, and for nominalists each must signify the particular as a whole: one is said to refer to it and the other is said to apply to it. The difference appears to lie in the type of relation, “referring” versus “applying”, but no explanation appears to be available as to how these relations differ. If the difference is that one is appropriate to a proper name and the other appropriate to a predicate, then there would have to be a linguistic distinction, that is, a syntactic distinction, between these two pieces of language, but it is not clear that the distinction between proper names and predicates

50 Devitt, “‘Ostrich Nominalism’ or ‘Mirage Realism’”, p. 435, and Quine, “On What There Is”, p. 11; see also Armstrong, “Against ‘Ostrich’ Nominalism: A Reply to Michael Devitt”.

can be characterized purely in terms of language without any reference to metaphysical accounts of particulars and properties. In fact, Crispin Wright argues that it is unlikely that it can be done.⁵¹ It could be claimed that a proper name “refers” to one particular, while a predicate can “apply” to many particulars. But if we ask why this is the case, we merely reopen the question of the one and the many, the significance of which Quine and Devitt wish to deny.

The important difference between a predicate and a proper name is that a proper name refers to a particular by convention, while a predicate, whether it refers to something or not, cannot apply to a particular by convention; if it did, a simple predicative sentence containing it would be true by convention and therefore not true in the ordinary sense. A predicate is, however, attached by convention to something objective about the world, however explained – something general, however the general aspects of the world are explained. Consequently, the truth of a predicative sentence cannot be explained purely in terms of reference and satisfaction; the explanation must also include the requirement that the particular share in some way in the “something objective about the world” that the predicate is attached to by convention. Convention requires some words (proper names) to be attached to one particular, and convention equally requires that other words (predicates) be attached to one “characteristic” (however a characteristic is construed), and as a consequence it is possible that these other words be attached to a number of particulars. Convention does not “permit” these words to apply to many particulars, since they can only be attached to particulars if they apply truly to those particulars; and there is nothing conventional or arbitrary about this type of attachment. This is, of course, all very easy to state in the language of properties: the proper name must refer to a certain particular, the predicate must refer to a certain property wherever that property is found, and the particular must possess the property.⁵²

Another difficulty with Devitt’s position is that it appears to disallow one type of explanation for a sentence’s not being true. If all that we can

51 See Crispin Wright, *Frege’s Conception of Numbers as Objects*, pp. 53–64, where he discusses at length the attempts of Frege and Dummett to give a purely syntactic account of singular terms.

52 There are versions of the correspondence theory of truth, such as those of Tarski and Davidson, that understand the relation of correspondence between a sentence or a proposition and the world as constructed out of the relations of reference and satisfaction, and, incidentally, do not make use of the ontological category of fact. I reject such theories because of the difficulties in explaining the difference between reference and satisfaction, and, because they lack an account of truth makers, they cannot say what truth consists in.

say is that an object satisfies a predicate, then it appears that we cannot say that a sentence is false on the grounds that the predicate does not refer to a genuine property. But it seems at least conceivable that a sentence that is universally accepted as true by a certain linguistic community could be regarded as in fact not true because the predicate does not refer to a genuine property. For example, the claim that the sentence ‘grass is green’ is false because science has shown that “green” is not a genuine property of objects at least makes sense.⁵³ On this view, namely, the doctrine of secondary qualities, the predicate ‘green’ would refer to a *quale*, something that blades of grass do not actually possess, since on this view humans merely project it on to them. Although there are communities of scientists who use the predicate ‘green’ to refer to the disposition of a body to reflect, emit, or transmit light with a wavelength in a certain band, which they would call “green light”, and they are indeed talking about a property with a claim to be real, this is not the ordinary use of the term.⁵⁴

Realists about universals have an idea of what it is for a predicate to refer to a property, but there is a difficulty for nominalists here. Kirkham, in a discussion about truth, suggests on their behalf that a predicate refers to a property when it has an extension,⁵⁵ but this suggestion leads to the nominalist version of the problem of uninstantiated properties – surely, the shape of the regular chiliagon, though not instantiated, is just as good a property as the shape of a regular pentagon, though (perhaps) instantiated. Perhaps predicate nominalists could come up with some other ways of distinguishing the use of “genuine” predicates from the use of “less than genuine predicates”, and perhaps they would convince the faithful. Berkeley had a way of distinguishing genuine perception from the non-genuine perception that occurred in dreams, and perhaps he managed to convince the faithful, if there were any faithful.⁵⁶ The non-faithful in both cases are going to find such devices artificial and unconvincing, and that they find them unconvincing points to something inherently problematic with the theory.

Given a way of deciding which predicates correspond to genuine properties that is based on metaphysical considerations rather than linguistic

53 Cf. Hardin, *Color for Philosophers*, pp. 59–67.

54 It is not clear that all the ways of creating the appearance of green form a natural kind. It is possible to create the appearance of green without the transmission of light in that band of the spectrum that normally gives rise to the appearance of green, in other words, without the presence of what some scientists call “green light”.

55 Kirkham, *Theories of Truth*, p. 311.

56 See J. O. Urmson, *Berkeley*.

considerations, it is very likely that only some of our predicates will correspond to genuine properties. Such metaphysical considerations will inevitably be part of a revisionary metaphysics, as Strawson would put it, in which many of the propositions that are taken to be true without question in ordinary language and in ordinary thought would be false. Realism about properties, particularly immanent realism, leads naturally to a sparse view of properties and to revisionary metaphysics, while transcendent realists face a constant temptation to overstock the Platonic heaven.

In a work of this sort there is no need to suggest a way of deciding which predicates correspond to genuine properties. And there is no need to make any assumptions about which properties there are. In *The Physical Basis of Predication*, I discussed the issue of which predicates refer to universals, and I also argued that there are atomic properties, and others are prepared to argue that there are, for example, dispositional properties.⁵⁷ There may also be complex properties, which have other genuine properties as components and are themselves genuine properties. I am also prepared to argue, but do not do so here, that there are emergent properties that are genuine properties, which would offer a prospect of many more properties than even the most charitable and broad-minded theory of atomic properties would allow.⁵⁸ For the purposes of this work, however, it is enough to note that the prospects for a sufficient number of properties are good.⁵⁹

57 See also Armstrong, *A Theory of Universals*; cf. Newman, “Critical Study of Nancy Cartwright’s *Nature’s Capacities and Their Measurement*”.

58 Cf. Armstrong, *A World of States of Affairs*, pp. 152–53. For Armstrong, his belief in conjunctive properties also increases the number of properties.

59 Some sentences that appear to predicate a property of an object may in fact be made true in a quite complex way. A sentence such as ‘that is interesting’ appears on the surface to be a matter of monadic predication. The sentence is actually made true not only by the possession of a property by an object, but also by a person’s attitude to the object – there appears to be a monadic foundation in the person who finds the object interesting. “Being interesting” might also supervene on certain features, like beauty, and perhaps beauty supervenes on other things such as the shape that an object actually possesses. It is conceivable that supervenient properties should be regarded as genuine properties; on the other hand, their causal powers are said to be inherited, and since supervenient properties are determined by base properties, the truth of sentences about supervenient properties is determined by the truth of sentences about base properties. See John Post, *Faces of Existence*.

2

The Univocity of Truth

2.1 HORWICH AND DEFLATIONARY THEORIES OF TRUTH

The predicate ‘true’ should mean the same thing for all the different kinds of proposition that it applies to, so that when it is said that a proposition is true, the same sort of thing is said whatever the kind of proposition. In other words, truth should be univocal. One of the manifest virtues of some theories of truth is that they make it clear from the very statement of the theory that truth is univocal in this fashion. Theories that rely on a single truth schema are of this type. Ramsey’s redundancy theory is one of the earliest theories of this type, and Horwich’s minimalist theory is one of the more recent examples. Alston’s minimalist realist theory of truth conforms to this type in that it has a single T-schema that says all that he wants to say about truth for all propositions.¹

Some truth schema theories, such as Ramsey’s redundancy theory, claim that the use of the predicate ‘true’ is redundant, in the sense that the sentence ‘‘Caesar was murdered’ is true’ says nothing more than the sentence ‘Caesar was murdered’. The claim that this equivalence exhausts what is meant by the predicate ‘true’ is his account of what is meant by ‘true’.² While deflationary theories, such as the redundancy theory, claim that there is no property of truth, Horwich claims that there is a property ‘‘true’’ that is predicated of propositions, but it is not ‘‘an ordinary sort of

1 Alston, *A Realist Conception of Truth*.

2 Ramsey, ‘‘Facts and Propositions’’, pp. 44–45. Ramsey adheres to Russell’s theory of judgement and a redundancy theory of truth, which he seems to think follows from Russell’s theory. For discussions of deflationary theories, see Kirkham, *Theories of Truth*, pp. 317–49, and Alston, *A Realist Conception of Truth*, pp. 41–51. Kirkham suggests, in effect, that any theory of truth based principally on the truth schema will not be able to explain the semantics of the logical constants. *Theories of Truth*, pp. 344–48.

property” in the sense that it is not a property analogous to a scientific property that could be used in theoretical explanations.³ The sentence ‘It is true that Caesar was murdered’ expresses a proposition different from, but “intimately related” to, that expressed by ‘Caesar was murdered’.⁴ “True”, while a property, is a property with minimal significance. His theory of truth consists merely of all the instantiations of the T-schema:

The proposition that p is true if and only p .

He is not prepared to make use of substitutional quantification because he claims that his theory allows us to do without that controversial device.⁵

From the point of view of those interested in the correspondence theory of truth, it is interesting that Horwich should agree that truths correspond to reality but deny that correspondence is what truth consists in. It would certainly be very strange if Horwich asserted that there was no need for true propositions to be made true by something in the world. To maintain credibility, he would have to be prepared to assert something like this, at least for a large group of philosophers. He acknowledges that “statements owe their truth to the nature of reality”, that propositions are true because the world is a certain way,⁶ and that truths correspond to reality. He denies, however, that relations such as these are constitutive of truth and that such correspondence is what truth consists in. He claims that the minimalist theory can explain the correspondence intuition that “snow is white is true because snow is white” and that as a consequence minimalism is more fundamental. He also claims that the minimalist theory “can easily be supplemented with characterizations of correspondence and fact to show that, indeed, for any true proposition or sentence, there is a corresponding fact.”⁷

Horwich says that minimalism explains “snow is white is true because snow is white” as follows: that snow is white is explained in the usual scientific way, and then snow is white is true is deduced from snow is white by means of the equivalence biconditional and thereby that snow is white explains that snow is white is true.⁸ But it is only an explanation if you

3 Horwich, *Truth*, pp. 2–3, 39–40. Cf. Crispin Wright, *Truth and Objectivity*, p. 37. Deflationists claim that the predicate ‘true’ does not refer to a property, whereas anti-deflationists claim that it does refer to a property. Realists about universals have an idea of what it is for a predicate to refer to a property, but nominalists have a problem here.

4 Horwich, *Truth*, p. 3.

5 Cf. Kirkham, *Theories of Truth*, p. 341.

6 Horwich, *Truth*, 2nd ed., p. 104.

7 *Ibid.*, p. 116.

8 *Ibid.*, pp. 104–5.

regard the equivalence biconditional as an explanation. Despite Horwich's *assertion* that equivalence biconditionals are fundamental explanations, it is difficult to believe that any equivalence biconditional is a fundamental explanation just because it is an equivalence biconditional.⁹

Horwich's case against the correspondence theory is that minimalism *explains* correspondence and not vice versa and no satisfactory version of the correspondence theory has been developed.¹⁰ His case for priority of explanation is questionable and depends on a notion of explanation that takes equivalence biconditionals to be fundamental explanations. The aim of this work, of course, is to develop a satisfactory version of the correspondence theory.

He also prefers his minimalist theory to a correspondence theory for methodological reasons: a general correspondence theory would also be list-like and not an improvement on minimalism, and in his analysis the prospects for a correspondence theory are not good.¹¹ And indeed he is right. Any detailed account of correspondences and facts would very likely give different accounts of these for each type of proposition and so may well lead to a list-like theory, though the list could hardly have as many items as Horwich's minimalist theory.

The significance of the correspondence accounts *supplementing* the T-schema instances is not explained. It is not clear what is meant by 'supplement'. There is also a difficulty in insisting on a distinction between a theory of what truth consists in and an account of what makes a proposition true, that is, a theory for a particular type of proposition of what it is about the world in virtue of which a proposition of that type is true. And Horwich does use the language of truth makers: "any true proposition or sentence is made true by some fact."

Consider a type of proposition such that each proposition of this type is made true by correspondence with a fact, so that necessary and sufficient conditions can be given for the truth of such propositions in terms of correspondence and facts. This would be an account of what makes this type of proposition true. There would then be two, apparently distinct, necessary and sufficient conditions for a certain proposition of this type to be true, namely, the correspondence conditions and the instance of the T-schema. So whatever 'supplement' means, if the correspondence conditions supplement the T-schema instance, then they necessarily

9 Ibid., p. 117.

10 Ibid., pp. 104–5.

11 Ibid., pp. 112–15.

supplement the T-schema instance for that particular proposition. Nevertheless, if a certain type of correspondence with the world is a necessary and sufficient condition for a certain proposition's being true, and explains what it is about the world that makes that proposition true, it is difficult to avoid the conclusion that the truth of that proposition at any rate consists in that correspondence with that fact.¹²

If the T-schema instance is read as being about a proposition and the world, then it is plausible to suggest that the correspondence conditions and the T-schema instance are about the same thing, though they are not saying the same thing, since correspondence conditions would say more than the T-schema instance. On this view, the T-schema instance for a certain proposition would be a proposition with something left out, and when the details were filled in the result would be the correspondence conditions for that proposition. The correspondence conditions would be what the T-schema instance amounts to when the details are filled in. This suggestion at least gives a sense to the idea that correspondence conditions supplement the T-schema instance. However, the intuition of the correspondence theorist is that because each instance of the T-schema is a proposition with something left out, the instance of the T-schema does not tell us what truth consists in for that proposition, just because there is more to be said about what truth consists in for that proposition.

Horwich claims, in effect, that the significance of the T-schema instances lies in the fact that the correspondence conditions cannot explain the T-schema instances, while the T-schema instances can explain the correspondence conditions.¹³ But given that the T-schema instances are platitudinous and are different for each and every proposition, whereas the correspondence conditions are not platitudinous and apply to all members of a type of proposition, it is difficult to see in what sense the T-schema instances could explain the correspondence conditions.

It seems likely that different types of proposition will correspond to the world in different ways. So what we should like to see, though it is a difficult issue, is an account of the relation between the univocal

12 It is also possible to give necessary and sufficient conditions for the truth of propositions in terms of God's knowing a proposition. This shows that necessary and sufficient conditions for truth do not have an automatic right to be regarded as an account of what truth consists in. But, presumably, the conditions concerning God's knowledge cannot be said to supplement the T-schema. It appears, then, that there are at least three necessary and sufficient conditions for the truth of a proposition: the T-schema, the correspondence conditions, and that a proposition is true if and only if God believes it.

13 Horwich, *Truth*, p. 13.

property “true” that applies to all true propositions and the different types of correspondence each of which constitutes truth for a type of proposition. All Horwich provides is the suggestion that his theory can be supplemented by accounts of different types of correspondence that are about how facts make propositions true. We are left with the idea that all the different types of correspondence entail (but, so it seems, do not explain) instances of the T-schema and that this is what the instances of the T-schema have in common.

2.2 ALSTON AND MINIMALIST REALISM ABOUT TRUTH

According to Alston’s minimalist realist conception, truth is a genuine, non-redundant property of propositions. His conception of truth is distinguished from other general accounts of truth, such as the epistemic accounts of Dummett and Putnam, by the basic contention that “[t]here is a fundamental sense in which truth has to do with the relation of a potential truth bearer to a REALITY beyond itself”,¹⁴ and that there is a fundamental sense in which the notion of truth is independent of epistemological concepts, particularly those related to justification. Although his basic position is unaffected by which things are taken to be truth bearers,¹⁵ he takes propositions to be the primary truth bearers, while allowing that other things, such as sentences, could be truth bearers in a derived sense. Alston also has a minimalist account of propositions: a proposition is merely what is stated or what is believed, without further metaphysical commitment.¹⁶

His realist conception of truth is encapsulated in the T-schema:

The proposition that p is true iff p .

“The suggestion is that if we understand that any T-statement is conceptually, analytically true, true by virtue of the meanings of the terms involved, in particular the term ‘true’, then we thereby understand what it is for a proposition to be true.”¹⁷ Alston, unlike Horwich, is prepared to use substitutional quantification to obtain “a general account of propositional truth”, though for those who do not accept substitutional quantification

14 Alston, *A Realist Conception of Truth*, p. 8. In the footnote appended to this passage, he notes that this statement has to be qualified to handle self-referential statements.

15 *Ibid.*, p. 9.

16 *Ibid.*, pp. 15–20.

17 *Ibid.*, p. 27.

he gives a metalinguistic version.¹⁸ In its general form this theory is an “account” of truth that implies necessary and sufficient conditions for the truth of any proposition. But it should be noted that not all necessary and sufficient conditions are “accounts”.¹⁹

Alston, like Horwich, allows that details about correspondence can supplement his theory, but unlike Horwich he thinks that the general version of his theory cannot lay serious claim to being a *definition* of truth. A correspondence theory, however, in purporting to lay bare the proposition–fact relationship on which truth supervenes, does, he believes, claim to provide a definition of truth, at least a contextual definition, one that unpacks what is being said when truth is ascribed to a proposition or other truth bearer.²⁰ Like Horwich, Alston provides no actual details about correspondence, nor about how correspondence supplements his theory.

Although the distinction between an account and a contextual definition is not clear, it appears that an account gives an essential characteristic of the thing in question, whereas a contextual definition says, in a contextual fashion, of course, what the thing consists in. If this is right, then, for Alston, the generalized T-schema merely gives an essential characteristic of truth, while the details of the correspondence theory say what truth consists in. Horwich, in contrast, thinks that the instantiations of the T-schema say what truth consists in for each proposition, while details about correspondence supplement it in some unexplained way, presumably without contributing anything about what truth consists in. Horwich preserves the univocity of truth at the price of our intuitions about correspondence with reality, whilst Alston preserves our intuitions about correspondence with reality at the price of only an essential characteristic of truth being univocal.²¹

18 Ibid., pp. 27–30.

19 See n. 8.

20 Ibid., p. 33.

21 Alston explains the relation between his account of truth and details about correspondence in terms of Putnam and Kripke’s distinction between a concept and a property. Our *concept* of water is the way that we ordinarily think of water, its observable properties and the properties we use to pick it out. The *property* of being water, on the other hand, is the essential nature of water, that it is H₂O (a bit like the sense/reference distinction). Alston’s realist account of truth gives a concept of truth, being “an account of our ordinary concept of truth”, and a way of picking out the property of truth, whereas the details about correspondence are details about the property of truth itself. But perhaps there is not an exact parallel, since Alston’s realist account of truth is supposed to describe an essential, if not *the* essential, characteristic of truth rather than a characteristic that merely picks out truth.

Alston's discussion of the realist account of truth goes through a sort of development for the purposes of exposition, leading to the conclusion that the T-schema says something about correspondence in the most general terms possible. At an early stage in the discussion he speaks in general terms of truth having to do with "the relation of a potential truth bearer to a REALITY beyond itself", which, in effect, appeals to our basic intuitions about correspondence.²² He then introduces the T-schema in order to give a more formal account of what he is trying to say. And then later he discusses the relation of a proposition to reality in terms of facts: a proposition is made true by a fact. It is still the minimalist realist account of truth, but developed slightly: "To be sure, this talk of facts making propositions true is not on the surface in the T-statement, but it is not difficult to see it just below the surface".²³ The realist account of truth can also be stated formally in terms of facts and propositions:

(*p*) The proposition that *p* is true iff it is a fact that *p*.²⁴

He says that this formulation with the two occurrences of *p* "guarantees that the proposition and the fact that makes it true share the same propositional content".²⁵

Alston does not explain what he takes a fact to be. He does say, however, that a proposition and the fact that corresponds to it can share something called "a propositional content"; and it appears that each true proposition is made true by a single fact in the world, which is what I have called the naïve correspondence theory of truth.²⁶ For Alston a fact is a unit of

22 Alston, *A Realist Conception of Truth*, p. 8.

23 Ibid., p. 38.

24 Ibid.

25 Ibid.

26 The last of Alston's formulations of the minimalist correspondence account of truth are (ibid., p. 38):

XVI. (*p*) If the proposition that *p* is true it is made true by the fact that *p*.

XVII. (*p*) The proposition that *p* is true iff it is a fact that *p*.

For Alston, facts are not "mere shadows of propositions" but "genuine denizens of the extralinguistic, extraintentional world", "full-blooded components of reality" (ibid., p. 39). This implies that facts are units. The expression 'the fact that *p*' in XVI and the expression 'a fact that *p*' in XVII appear to describe a certain fact, and since facts are units, the proposition that *p* is made true by a single fact. That fact may have component facts, but it is, nevertheless, a single fact. This leads to difficulties if *p* is disjunctive. The expression 'the fact that *r* v *s*' must, according to Alston, describe a component of reality; it cannot be paraphrased as a mere description of truth conditions. Alston, is apparently, one of those brave souls who believe in disjunctive facts.

some sort and not merely a general way of speaking of how things are in the world, though he cannot hold what I shall call a compositional view of facts.²⁷ But beyond this we cannot go, since he does not say anything that even hints at a metaphysical account of the nature of facts, which is typical of those who hold what I shall call a linguistic view of facts.

But what is the distinction between a proposition and its propositional content? If a proposition is introduced merely as what is believed, how does that differ from the (propositional) content of what is believed? Many philosophers would assume that there was no distinction. Unfortunately, if proposition and propositional content are identical, the condition that proposition and fact should share the same propositional content becomes the condition that the proposition be part of the fact – but which part, what sort of part?²⁸ It seems likely that it will lead to the position that proposition and fact are identical, which was Russell's view in *The Principles of Mathematics*, where a true proposition is a complex, in other words, a fact.

Another difficulty lies with the claim that each proposition is made true by a single fact. If facts are the parts of reality that are truth makers, then many people would conclude that they are units of some sort, and would be inclined to assume that they were real units. However, many who do regard facts as real entities do not accept that there is a sufficient number of facts, that is, a sufficient number of types of fact so that there could be a single fact for each true proposition.²⁹ For example, ordinary language allows us to say that “it is a fact that either it is raining or Bertrand Russell is the pope”, but this may amount to no more than an assertion that “it is true that either it is raining or Bertrand Russell is the pope”, rather than a claim that there is an entity, or a piece of reality, that is a disjunctive fact. It is even difficult to regard a disjunctive proposition as describing informally how things stand in the world. When Armstrong, for example, who takes facts to be real units, engages in a critical review of what sorts of facts there are, he accepts conjunctive facts and rejects disjunctive and negative facts.³⁰ Others reject conjunctive facts. But for the purposes of this argument, it does not matter which types of fact you accept; it is enough to notice that if facts are indeed pieces of reality, then

27 See Chapter 6, Section 6.1.

28 I am grateful to Peter Forrest for comments on this point.

29 Marian David holds it against correspondence theories that they must posit so many different types of fact. *Correspondence and Disquotation*, p. 22.

30 Armstrong, *A World of States of Affairs*, pp. 35, 122, and *A Theory of Universals*, chaps. 14 and 15.

which types of fact there are is a matter for metaphysical discussion. It cannot be assumed that if there is a true proposition, then there is a single fact that makes it true; that would be inferring the nature of reality from the nature of thought and language, and there is no reason to think that that can be done.³¹

The obvious alternative to Alston's implicit claim that each true proposition is made true by a single fact is the claim of Russell, the *Tractatus*, and Armstrong that true propositions are made true by *the facts*.³² On this view, there are some propositions such that each of them is made true by a single fact, and there are other types of proposition each of which is made true by a number of facts, perhaps a large number of facts. Disjunctive propositions such as "either it is raining or Bertrand Russell is the pope" and true negative propositions such as "grass is not red" would each be made true by a number of ordinary positive facts, but not by the simple correspondence appropriate to predicative propositions. A distinction between different types of correspondence is exactly what you find in Russell and in Wittgenstein's *Tractatus*.³³ In the *Tractatus*, for example, elementary sentences are true in virtue of correspondence with a state of affairs, while other sentences are true in virtue of being functions of elementary sentences. The non-elementary sentences are limited to sentences formed from elementary sentences by means of the truth functions of propositional calculus, with the quantified sentences probably being understood as infinite conjunctions and disjunctions. Most people today would accept many more different types of non-elementary, or non-predicative sentences – there are all the different types of proposition of the Davidson programme, for example – but two different types of sentence are enough to make the point. Unfortunately, it appears to follow that truth consists in something different for each different type of proposition or sentence, and so it appears to follow that truth is not univocal.

The generalized T-schema is clearly consistent with Alston's single fact per true proposition view; but is it also consistent with the Russell–Armstrong multiple-fact view, which entails different types of correspondence for different types of proposition? It is, I think, if the generalized T-schema is read (contra Alston) as conveying no ontological hints of any

31 For a discussion of the syntactic priority principle, see Newman, *The Physical Basis of Predication*, chap. 2.

32 Armstrong, *A World of States of Affairs*, p. 129.

33 Austin's theory of truth presents truth as univocal but seems to limit itself to one type of proposition.

kind. Obviously, it cannot be read as “the proposition that p is true iff it is the case that p ”, since “being the case” is the same as “being true”.³⁴ It cannot be read as “the proposition that p is true iff it is a fact that p ”, where “it is a fact that p ” is understood to mean that there is a single fact. And it is not clear to me at any rate that it can be read as “the proposition that p is true iff it is a fact that p ”, where “it is a fact that p ” is understood in an informal way as being about how things stand in the world, since a true disjunction cannot be regarded as describing how things stand in the world, even informally. A very general reading of the T-schema is probably more like how Horwich wants to understand it rather than how Alston wants to understand it, since Alston regards his formulation in terms of facts as lying just below the surface of the T-schema. On the other hand, in his most general formulation Alston speaks of a true proposition having a relation to a “REALITY beyond itself”, and in a sense true disjunctive propositions and true negative propositions do have a relation to a reality beyond themselves.

2.3 THE PROBLEM OF THE UNIVOCITY OF TRUTH

The issue of whether truth means the same thing for all the different types of sentence (or proposition) is analogous to the issue of whether *existence* is univocal, an issue that was much discussed in the Middle Ages. In more recent times, Russell has claimed that there are two modes of existence, though that claim is, in fact, not unlike a claim that there are two principal categories of thing and a single mode of existence.³⁵ My claim about truth is that although different kinds of sentence (or proposition) may be related to the world in different ways, the property “true” is the same property in all cases. The word ‘true’ is univocal, because the word ‘true’ means the same thing in all contexts, in the sense that it refers to the same property in all contexts. It is conceivable that correspondence should be a genus with a number of species, but with truth there is just one species.

Armstrong distinguishes between simple correspondence for predicative propositions, a different type of correspondence for disjunctive propositions determined by the truth function for disjunction, and for true negative propositions a relation with the world based on what he

34 Perhaps “it is the case that p ” is ambiguous between “it is true that p ” and “it is a fact that p ”.

35 See Russell, *The Problems of Philosophy*, p. 100, and Grossmann, *The Existence of the World*, who defends the usual view that there is only one mode of existence.

calls counter-correspondence.³⁶ Armstrong suggests, in effect, that “correspondence” is a genus with a number of species: besides simple correspondence, there is another type of correspondence for negative propositions and a different type of correspondence for each type of compound proposition. Now, if we were to ask what the different types of correspondence have in common, the answer would appear to be that what they have in common is that each is a relation between the world and a proposition that determines the *truth* of the proposition. What the different types of correspondence have in common is explained in terms of truth, whereas our natural expectation is that what they have in common is what truth is.

Although it is right to say that for each type of proposition there is a different type of correspondence, and that for each type of proposition, truth *consists* in the appropriate type of correspondence, it is not right to say that there is a different type of truth for each type of correspondence. We may talk about different types of correspondence and about a generic concept of correspondence, but we may not talk about different types of truth and also about a generic concept notion of truth. It appears that the best that we can say about truth is that it is some property of propositions determined by the facts in various ways.

However, there is more to be said. For a start it should be said that simple correspondence for predicative propositions is paradigmatic truth, and not only paradigmatic; it is foundational. Consider a disjunctive proposition as an example of a non-predicative proposition. The component propositions of a disjunctive proposition are either themselves predicative propositions, or their components are predicative propositions, or the components of the components are predicative propositions, and so on, or the truth values of the components are determined in some fashion by predicative propositions. In this way a complex proposition, such as a disjunctive proposition, can be said to have a basis in the facts.³⁷ Truth for a disjunctive proposition is based on two things. First, there is the notion of *truth value* for predicative propositions, which is a development of the notion of *truth* for predicative propositions.³⁸ The other notion required

36 Armstrong, *A Theory of Universals*, p. 27. See also Chapter 8, Section 8.5, below.

37 If there are self-referential propositions in the way that there are self-referential sentences, they would not have a basis in the facts. Instead of having their feet planted on the ground, like respectable predicative propositions, they would be holding each other up by the shoelaces. To apply the notion of truth to them would be stretching pluralism about truth, but in some contexts it may be possible to do it.

38 The truth values of a proposition are *true* and *false* where *false* is the negation of *truth*.

is the notion of disjunction itself. There is a dispute about how to explain the meaning of a logical connective such as disjunction; some say that it is given by its ordinary language meaning, others say that it is given by the associated rules of inference.³⁹ But however its meaning is explained, it is essential to the notion of disjunction that a disjunctive proposition have a truth value and that that truth value be determined by the truth values of its component propositions. The truth value of a disjunctive proposition is determined only by the facts, via the truth values of predicative propositions. So, truth for a disjunctive proposition is not just another way in which the facts determine a property of a proposition; the application of the notion of truth to disjunctive propositions is an extension of the application of the notion of truth to predicative propositions.⁴⁰

Suppose that some quantity z is a function of two other quantities x and y , in other words, it is determined by x and y via a functional form, then it is at least plausible to claim that z is the same type of thing as x and y , though it does not have to be. As it happens, the very idea of the disjunctive connective carries with it the idea that truth and falsity for disjunctive propositions are the same properties as truth and falsity for predicative propositions. It is an idea that could be defeated, if, for example, it led to inconsistencies, but in fact it has not been defeated.

This allows truth to be univocal and at the same time allows a certain pluralism, to borrow or, rather, misappropriate, a term from Crispin Wright.⁴¹ Truth is a property of a proposition that is determined by the facts for which the truth of predicative propositions, which consists in simple correspondence, is the paradigm case. It should be noted that I do not intend to work this out for all types of propositions; I merely put it forward as a suggestion to explain how truth can be an univocal concept.

It is difficult to balance pluralism about truth with the paradigmatic and foundational role of simple correspondence for predicative propositions. There is nothing problematic about saying that truth for a predicative proposition *consists* in simple correspondence, and there is little harm,

39 See Chapter 8, Section 8.2. See also Haack, *Philosophies of Logic*, pp. 30–32; Prior, “The Runabout Inference Ticket”; and Quine, “Truth by Convention”, who describes a number of ways, all conventional in his view, in which a proposition can be true.

40 “Tarski also wanted his theory of truth to show how the grammatical structure of a sentence affects its truth value. Readers familiar with propositional logic will realize that the truth tables are a kind of incomplete graphic definition of truth that accomplishes just this task for the compound sentences of logic.” . . . Kirkham, *Theories of Truth*, p. 142.

41 Wright, *Truth and Objectivity*. Michael Lynch calls it alethic pluralism.

apparently, in supposing that truth for a predicative proposition is *identical* with simple correspondence. But in the case of negative propositions, for example, when it is said that truth for a negative proposition *consists* in a relation with the world based on counter-correspondence, this does not imply that truth in this case is *identical* with this type of correspondence; for then there would be as many different types of truth as there are types of correspondence. It means that truth has its being in this type of correspondence, or that truth is constituted of it. The metaphor is that of a physical object being constituted of its parts. To make use of an ancient comparison, it is similar to saying that the beauty of one object consists in the arrangement of its parts, while the beauty of another object consists in another sort of arrangement of parts, but both objects are nevertheless beautiful.⁴²

Truth could also be regarded as supervenient upon correspondence, as Alston suggests in passing.⁴³ Truth would be the single supervenient property and the various correspondence relations the base properties, with the necessity involved being broadly logical necessity. Whenever there is a correspondence relation of the appropriate type between a proposition and the world, it follows necessarily that the proposition is true, and necessarily if a proposition is true, then there is a correspondence relation of the appropriate type between it and the world. Truth could also be regarded as in some ways like a natural kind concept. According to Putnam, a natural kind has certain paradigmatic members (good exemplars of the kind), and to be member of the kind another individual has to resemble the paradigm members in certain way. On Putnam's view of a natural kind, being a horse will consist in possessing one set of properties for one individual and a different, but related, set of properties for another individual.⁴⁴ In the case of truth, simple correspondence is the paradigm member of the kind and the truth-functional types of correspondence resemble it in paradigmatic ways.

Both Horwich and Alston think that it is possible to give an account of what truth consists in. Horwich actually attempts to give us one, though it is not an explicit definition; it is at best a contextual definition, or perhaps a

42 Cf. Plato, *Philebus*. Evan Fales suggests that truth could be the same as generic correspondence.

43 Cf. Alston, *A Realist Conception of Truth*, p. 33.

44 Cf. Wiggins, *Sameness and Substance*, pp. 78–79, “. . . x is an f (horse, cypress tree, orange, caddis-fly . . .) if and only if, given good exemplars of the kind (this, that and the other particular f), the most explanatory and comprehensive true theoretical description of the kind the exemplars exemplify would group x alongside these exemplars.”

characterization that goes so far as to say what truth consists in. For Alston, it is the details of correspondence that will say what truth consists in, and he suggests that it might be a contextual definition, which says in a contextual fashion what truth consists in. Since truth is one of the most fundamental notions, it does seem unlikely that an explicit definition could be given in terms of some other property, which itself would have to be a fundamental property of the same order.⁴⁵ Even Putnam, who does explain truth in terms of another fundamental notion, namely, justification, talks about an informal elucidation rather than a formal definition of truth.⁴⁶ For fundamental notions, Frege and Wittgenstein also liked to talk about elucidations or characterizations, which fell short of explicit definitions but might be regarded as saying all that could be said about what the thing consisted in.

Russell in his 1910 essay on the nature of truth was well aware of these distinctions.⁴⁷ He says that he does not believe that there is a criterion of truth, or some universal trade-mark of truth; in other words, he does not believe there is some one thing other than truth in terms of which truth can be explained. To explain truth as warranted assertibility (Dummett) or as idealized rational acceptability (Putnam) would indeed appear to be doing just that, defining truth in terms of other fundamental concepts. One of the reasons why Rescher rejects the correspondence theory of truth is its incapacity to provide a “workable criterion of truth”.⁴⁸ But Russell does think that it is possible to explain what the nature of truth is, or what constitutes truth, or what it means to say that something is true.⁴⁹ His project was to give a contextual account of what truth consists in. In this I think that Russell had the right idea.

Because the project of this book, like Russell’s project, has to do with the nature of truth, there is a modal element involved. It is equivalent to giving necessary and sufficient conditions for the truth of a truth bearer, where the type of necessity involved in those conditions is broadly logical necessity (as Plantinga uses the term), which is characterized by the phrase

45 Although it is possible to explain the notion of fact without the notion of truth, the notion of belief and the notion of assertion cannot be explained without the notion of truth, and propositions are explained as the content of beliefs or as what is asserted.

46 Putnam, *Reason, Truth and History*, p. 56. He explains truth as idealized rational acceptability.

47 Russell, “On the Nature of Truth and Falsehood”.

48 Rescher, *The Coherence Theory of Truth*, pp. 7–9.

49 For a discussion of the distinction between definitions versus criteria of truth, which becomes important in the criticism and defence of the coherence theory of truth, see Haack, *Philosophy of Logics*, pp. 88–91; cf. Russell, *The Problems of Philosophy*, chap. 12.

“true in all possible worlds”. According to Kirkham’s classification of theories of truth it would be an example of the essence project, which is one of the subdivisions of the metaphysical project.⁵⁰

2.4 REALITY AND THE ELEATIC PRINCIPLE

In what follows I am going to assume that there is only one fundamental sense in which things exist, though there are a number of different fundamental categories of thing; and though it could be said that things differ in their degree of ontological significance, I am going to assume that there is only one fundamental sense in which things are real.⁵¹ Talking about existing and talking about being real are just different ways of talking about the same thing. A number of criteria for which things exist, or which things are real, have been suggested. For some, following Frege and Russell, syntax is a guide to what is real. Frege’s idea was that the existence of a type of singular term (e.g., numerals) shows the existence of a type of object (e.g., numbers) that are their references.⁵² Russell’s idea was that any singular term refers to something that *is* in some sense, as he put it.⁵³ For Quine and his followers, quantification is essentially a device for talking about objects, and we reveal which things we take to be objects, our ontological commitment, by quantifying over them.⁵⁴ Others regard as real what our best scientific theories assume to exist. This may amount to: there are certain theories that we have a right to regard as true, these involve reference to certain things, therefore we have a right to regard those things as real – science plus semantics. And David Armstrong, and some others, say that the guide to what is real is either causal significance or making a difference to things with causal significance.

50 Kirkham, *Theories of Truth*, pp. 23–24, 37, 122.

51 I am grateful for the comments (and influence) of Peter Forrest and Patrick Monaghan on this issue.

52 Frege, *Foundations of Arithmetic*. Frege allows that some members of a type of respectable singular term may not have references (e.g., ‘Odysseus’); so perhaps his idea is that the existence of a type of singular term in sentences generally acknowledged to be true (e.g., the sentences of arithmetic) shows the existence of a type of object. For Frege, sentences about Odysseus are neither true nor false. This makes Frege’s criterion for what is real equivalent to the science-plus-semantics criterion described below.

53 Russell, *Principles*, p. 43. I am ignoring here Frege’s distinction between *objective* and *real* (*Foundations of Arithmetic*) and Russell’s later distinction between *being* and *existence* (*Problems of Philosophy*, p. 100). Frege’s objective things and real things both exist (if they exist) in the fundamental sense, as do both Russell’s things with being and things with existence.

54 I have criticized Quine’s views elsewhere. *The Physical Basis of Predication*, pp. 26–35.

The difficulty with the syntactic approach, particularly Russell's version, is that all sorts of things that we should not normally regard as existing are credited with "being" in some sense:

Whatever may be an object of thought, or may occur in any true or false proposition, or can be counted as *one*, I call a *term*. This is the widest word in the philosophical vocabulary. I shall use as synonymous with it the words unit, individual, and entity. The first two emphasize the fact that every term is *one*, while the third is derived from the fact that every term has being, i.e. *is* in some sense. A man, a moment, a number, a class, a relation, a chimaera, or anything else that can be mentioned, is sure to be a term; and to deny that such and such a thing is a term must always be false.⁵⁵

Colin McGinn, who is also, apparently, guided by linguistic practice,⁵⁶ believes that the broadest category, the category that we quantify over, is "objects of thought", which includes actual and possible things, all of which exist, and also fictional things, which do not exist.⁵⁷ In McGinn's case, our use of singular terms and quantification is a guide to which things are objects, since for him objects include objects of thought, but not a guide to what we take to "exist". In common with all linguistic approaches, things are admitted as existing, such as possible objects, that realistically minded metaphysicians would reject.

The difficulty with the science-plus-semantics approach is that it is uncritical. There is no reason why an accurate scientific theory should not make use of singular terms and predicates that do not refer to anything. Which terms you take to refer depends on your interpretation of the theory, where interpreting a theory requires critical, metaphysical discussion. For example, Newton's presentation of Newtonian Mechanics refers to corpuscles, forces, and absolute space, and Newton believed that there were such things; whereas for various metaphysical and, unfortunately, epistemological reasons Ernst Mach rejected all three, though perhaps he could not altogether avoid using the terms and so appears to refer to them.⁵⁸

55 Russell, *Principles*, p. 43.

56 *Logical Properties*, p. 41.

57 *Ibid.*, pp. 30–45. Grossmann also thinks that the category of objects of thought is broader than the category of existing things (*The Existence of the World*).

58 For Mach's views, see *The Science of Mechanics*. Since Newton and Mach would get the same results from their calculations, we say that they share the same algorithm. Similarly, Niels Bohr and David Bohm would get the same results from their quantum mechanical calculations, since they share the same algorithm, even though they had different views about what sort of reality it represents. It is characteristic of physical theories to have a number of

The approach I favour is a version of Armstrong's Eleatic principle, which does indeed provide a basis for critical, metaphysical assessment. He states the principle as "Everything that exists makes a difference to the causal powers of something", and intended it as an improvement on the principle that whatever is real has causal power, favoured by Shoemaker and Frege.⁵⁹ In Chapter 5, I argue that predicative propositions are at least related to things that possess causal powers. This gives me a case for maintaining that truth is a real property. Alston could adopt the same approach, but it is not clear what sort of account Horwich could give. Redundancy theories, in contrast, do not regard truth as a property, but appear to regard it as something like an operator in the way that the *Tractatus* regards the logical constants as operators.⁶⁰

An earlier version of Armstrong's Eleatic principle criticized by Alex Oliver goes as follows: "But if they are powerless in the space-time world, then whether they exist or whether they do not will make no difference to what happens in the space-time world. Are they not then useless postulations?"⁶¹ Oliver interprets this as meaning that we have no good reason to postulate the existence of causally inert entities. He claims that this principle is ambiguous because there is an epistemological reading of 'reason' and a metaphysical reading of 'reason', corresponding to which there is an epistemological reason for naturalism and a metaphysical reason for naturalism, both of which reasons Oliver rejects.⁶²

different metaphysical interpretations. Quantum mechanics is the most notorious, but there are also different interpretations of special and general relativity. Newton's claim that there are forces, which Mach denies, brings in the problem of universals because it presupposes an account of what it is to say that there is a certain property or relation. There are a number of metaphysical issues concerning forces; see Newman, *The Physical Basis of Predication*, pp. 150–55, where I argue that a force is a two-place relation.

59 D. M. Armstrong, *A World of States of Affairs*, p. 41; see also pp. 38–43 and 243–46.

60 See Chapter 8, Appendix 8.1, for a critique of the *Tractatus's* view of the logical constants as operators.

61 Armstrong, "Can a Naturalist Believe in Universals?", p. 104. The Eleatic Stranger of Plato's *Sophist* (247d–e) says, "I'm saying that a thing really is if it has any capacity at all, either by nature to do something else or to have even the smallest thing done to it by even the most trivial thing, even if it only happens once. I'll take it as a definition that *those which are amount to nothing other than capacity.*" In *A Theory of Universals* (pp. 43–47), Armstrong puts forward four propositions about properties that together constitute identity conditions for properties: (1) the active and passive powers of particulars are determined by their properties, (2) every property bestows some power on the particular that possesses it, (3) every property bestows the same powers on each particular that possesses it, (4) each property bestows different powers. This should be modified to take into account the fact that there are properties that merely contribute to the causal powers of other things.

62 Alex Oliver, "The Metaphysics of Properties", pp. 8–9.

According to the epistemological reading of the Eleatic principle, we can have no evidence for the existence of causally inert entities. This assumes that someone must be causally connected to something to have evidence for believing in it. Oliver rightly criticizes the epistemological reason for naturalism on the grounds that it is not generally agreed that we must have a causal connection with something in order to have evidence for believing in it. It is perhaps more commonly agreed that we need to have a causal relation with something to be able to refer to it. But the problematic examples for the causal theory of reference are equally problematic examples for a causal condition for evidence, namely, uninstantiated universals, such as chiliagon-shaped and the higher trans-uranic elements. Unfortunately, how you assess these problematic examples will depend on your views about universals.

According to the metaphysical reading of the Eleatic principle, causally inert entities cannot explain anything that happens in the space-time world just because they are causally inert. But this assumes that the only form of explanation is causal explanation, even in metaphysics, which, as Oliver rightly points out, is something that Armstrong denies. This metaphysical reason for naturalism will be rejected by many on the grounds that Platonism is a plausible metaphysical system, yet Platonism posits the existence of causally inert abstract objects that do explanatory work. On the other hand, the critics of Platonism complain that the very separation of abstract objects from the space-time world makes them irrelevant to the space-time world, since they cannot affect things in the space-time world causally and they cannot constitute things in that world. Similarly, they would complain that the separation of Lewis's possible worlds from the actual world makes them irrelevant to the actual world.

Commenting on his later version of the Eleatic principle given in *A World of States of Affairs*, Armstrong says “. . . the argument for the principle seems to be epistemic and even pragmatic. If an entity makes no difference to the causal powers of anything, then there would never be any good reason for postulating that thing's existence.”⁶³ Even though Armstrong uses the word 'epistemic', Oliver's metaphysical interpretation seems to suit it just as well. This version allows that there could be causally inert entities, but they would have to make a difference to the causal powers of something.

63 *A World of States of Affairs*, p. 42. In fairness to Oliver, I should point out that Armstrong's comments were published in 1997, whereas Oliver's paper was published in 1996.

I recommend that the Eleatic principle be regarded as a metaphysical principle, in fact, as the assertion of the intuition behind the objection to Platonic objects on account of their *separation* from things in this world.⁶⁴ This intuition is that things separated in this way from this world cannot provide a metaphysical explanation of things in this world. How could such things make a difference to things in the space-time world when they can neither interact with them causally nor constitute them and, it seems, are capable of no other sort of connection, either? The Eleatic principle does not specify possession of causal powers, only “make a difference to” causal powers, and it would be a good idea not to limit “make difference to” to making a difference to causally or to making a difference to by constituting something, but to allow the possibility of other ways of making a difference to. This gives us two categories of real things: (1) things that themselves possess causal powers, and (2) things that themselves do not possess causal powers, but which contribute in some way to the causal powers of other things.⁶⁵

It seems fairly obvious to many philosophers, particularly those that take physical science seriously, that particulars that have properties with causal powers are good examples of real things, and for realists about universals it appears also that properties that endow particulars with causal powers are also good examples of real things. To begin with, we admit only such things, since they seem the most respectable of entities, and then need good reason to admit further things of different types. According to this view of the Eleatic principle, we should be prepared to admit further things of different types on condition that they make a difference to things with causal powers, without specifying in advance what “make a difference to” includes, and without specifying in advance what metaphysical explanation consists in. Oliver would undoubtedly regard this interpretation as vague and just not clear enough, and he would have a case, but it might make a good working principle.

For example, relations between properties with causal powers could be examples of things that make a difference to things with causal powers if they contributed to the causal powers of the properties or if they

64 Armstrong, in considering this interpretation, says that “it seems that we really want to outlaw things that have no causal power, actual or potential, in relation to the actual world.” (*A World of States of Affairs*, p. 42) But he leaves the matter undecided.

65 Category (1) corresponds to Frege’s term ‘real’, but category (2) does not correspond to Frege’s term ‘objective’, because some things that are merely objective in Frege’s sense are causally irrelevant things that occupy the third realm.

contributed to constituting the properties in some way. There would therefore be a case for regarding such relations as real things, though perhaps with a lesser degree of ontological significance. On the other hand, it could be argued that a *set* of properties thought of as a unit in its own right should not be regarded as a real thing, because the set makes no difference to those properties, neither by contributing to their causal powers, nor by contributing to constituting them, nor in any other way that we can think of. Since relations between properties and sets of properties could both be regarded as supervening on the properties, supervenience itself is no guide to whether something is real or not.

3

The Correspondence Theory for Predicative Sentences

3.1 DIFFICULTIES ABOUT STATES OF AFFAIRS IN THE *TRACTATUS*

The purpose of this chapter is to give an account of the truth of predicative sentences, where a predicative sentence is one that is used to say that a particular has a certain property or that a number of particulars stand in a certain relation to each other. The starting point is the account of elementary sentences given in the *Tractatus*, which, through discussion and criticism, will be used to form the basis for a general account of the truth of predicative sentences. Despite the fact that a number of the assumptions and doctrines of the *Tractatus* are unacceptable, such as its form of metaphysical atomism and the isomorphism that it posits between an elementary sentence and an atomic fact, the general way in which it avoids reifying what is said by a sentence is of abiding interest. Not only do its sophistication and thoroughness recommend it as a suitable starting point, the issues raised are by no means irrelevant to contemporary discussions.

As in Russell's version of logical atomism, there is in the *Tractatus* no formal announcement of what truth consists in, but, as in Russell's work, the notions of truth and falsehood come in all the time. If anything, the *Tractatus* has more to say about truth and falsehood. The earlier sections of the *Tractatus* are dominated by the idea that a true elementary sentence is isomorphic to a certain type of fact, while the middle sections are devoted to the idea that the truth and falsehood of compound sentences can be explained in terms of truth functions, which relate compound sentences to their constituent elementary sentences.¹

1 Max Black suggests that there are hints of the redundancy theory of truth; see *Companion*, pp. 215 and 218.

Facts are the first ontological category introduced. The world is said to consist of facts, where a fact (*Tatsache*) is the objective correlate of a true sentence. The idea, I take it, is that language is the mirror of the world (5.511), so that sentences as the primary linguistic category mirror facts, the primary ontological category. The detailed discussion, however, of the relation of language and the world mainly concerns the correlation that holds between an elementary sentence and a state of affairs (*Sachverhalt*).² The difficulty with states of affairs is that though they appear to be related to facts in some way, they are spoken of differently from how we should normally speak of facts; it is said, for example, that “[t]he existence and non-existence of states of affairs is reality” (2.06). Neither Russell nor Frege understood what a state of affairs was from reading just the *Tractatus*, though Russell must have been happy with the notion of fact.³

There are two interpretations, the majority view being represented by Max Black and the minority view by Erik Stenius. Black, while admitting that the use of the term is not entirely consistent, maintains that a state of affairs is an atomic fact, where all facts, atomic or otherwise, are described by true sentences.⁴ A number of the propositions of the *Tractatus* do indeed speak of a state of affairs as an actual combination of objects (e.g. 2.01, 2.03), and one speaks of a fact as an actual combination of states of affairs (4.2211). For Stenius, on the other hand, a state of affairs is an arrangement of objects, where the word ‘arrangement’ maintains its customary ambiguity between actual arrangement and possible arrangement.⁵ In fact, it is often admitted by those who disagree with Stenius about states of affairs that the word ‘situation’ (*Sachlage*) has just this sort of ambiguity (cf. 2.0122). A number of the propositions of the *Tractatus* do indeed speak of the “the existence and non-existence” of states of affairs (e.g. 2.06–2.11, 4.1); and one says that “A proposition

2 In the Pears and McGuinness translation of the *Tractatus*, ‘*Tatsache*’ is translated as ‘fact’ and ‘*Sachverhalt*’ is translated as ‘state of affairs’. In the Ogden translation, ‘*Sachverhalt*’ is translated as ‘atomic fact’, which is probably the best interpretation; but for the purposes of discussing issues of interpretation, ‘state of affairs’ is a useful, neutral term. Armstrong’s term ‘state of affairs’ corresponds to Wittgenstein’s general term ‘fact’.

3 See Monk, *Wittgenstein: The Duty of Genius*, pp. 163–65.

4 Black, *Companion*, pp. 39–45; cf. Anscombe, *An Introduction to Wittgenstein’s Tractatus*, p. 30. For a vigorous defence of Black’s position, see Peterson, *Wittgenstein’s Early Philosophy*, appendix I.

5 Stenius, *Wittgenstein’s Tractatus*, p. 31. Cf. Bradley, *The Nature of All Being*, and Fahrnkopf, *Wittgenstein on Universals*. Kirkham uses the term ‘state of affairs’ in what he calls its philosophical sense, which allows there to be potential but non-actual states of affairs; in other words, the linguistic view of facts. *Theories of Truth*, p. 73.

is a description of a state of affairs” (4.023), without specifying true proposition, and so implying that both true and false propositions describe states of affairs.⁶

It looks as though the issue is settled in Black’s favour by Wittgenstein’s letter to Russell of 19th August 1919: “Sachverhalt is, what corresponds to an Elementarsatz [elementary proposition] if it is true. Tatsache is what corresponds to the logical product of elementary props when this product is true.”⁷ But perhaps the letter of 1919 represents later reflection on his work. Perhaps in the *Tractatus* Wittgenstein was not consistent in his thinking, sometimes using ‘*Sachverhalt*’ to mean atomic fact and sometimes using it to mean something nearer the “descriptive content” expressed by a sentence, to use Stenius’s term.

But supposing that Wittgenstein is being consistent, why is a state of affairs spoken of differently from a fact, and in what sense do all elementary sentences describe states of affairs? Now, the *Tractarian* account of elementary sentences compares the way an elementary sentence describes the world to the way in which a picture depicts the world, so Black, by way of interpretation, suggested that one can speak of what a picture depicts without implying that what a picture depicts exists.⁸ Confronted with a number of pictures of classical subjects, it might be asked, “What do these pictures depict?” And someone might truthfully answer, “This depicts a centaur”, “This depicts Pegasus”, or “This depicts the flaying of Marsyas”, while nevertheless believing that there are no centaurs, that there was no Pegasus, and that there never was a Marsyas to be flayed. Similarly, so it is suggested, it can be truthfully said that a false elementary sentence describes a certain fact, without implying that there is an actual fact to be described.

This position is related to the *Tractarian* doctrine that a sentence asserts itself without the need for an assertion sign, or the need of an extra intentional attitude on the part of a person using it other than those that assign the components of the sentence their references. Wittgenstein rejected Frege’s idea that an assertion sign needs to be prefixed to a sentence in order to convert a sentence into a symbol that says that things stand in a certain way; for Wittgenstein an elementary sentence by itself, merely by existing as a well-formed sentence, says that things stand in a certain way

6 Perhaps the clumsiness in talking about existing and non-existing states of affairs is related to difficulties he had with negation. See 2.06.

7 Wittgenstein’s letter to Russell of 19 August 1919, *Letters to Russell, Keynes, and Moore*, p. 72.

8 Black, *Companion*, p. 45.

(4.022, 4.21, 4.442). An elementary sentence purports to describe a state of affairs and, whether true or false, purports to be true. If a sentence is well formed, it follows that such a state of affairs is possible; it does not follow that it describes a something that is a possible state of affairs (e.g., 2.0124).⁹ Perhaps this is the sense in which an elementary sentence, any elementary sentence, describes a state of affairs (4.022, 4.031).¹⁰

But I do not think that this position that I have described is entirely convincing; I think that it is best simply to take a *Sachverhalt* to be an atomic fact. Fact locutions can be taken in two ways, either as describing a certain unit existing in the world or as merely a way of describing how things are or how things could be without a commitment to ontological units. But it is essential to the *Tractatus* to understand facts and states of affairs as real units, not as a way things could be. There is also a difficulty common to descriptive contents and fact locutions used without ontological commitment: they both appear to be more like propositions than facts regarded as units existing in the world.

Wittgenstein's notion of state of affairs suggests a number of ideas put forward by other philosophers. Black says that Stenius's notion of "descriptive content", in other words the Tractarian notion of state of affairs according to Stenius, is similar to Meinong's notion of "*Objectiv*". It also appears to be similar to, or to suggest, Russell's earlier notion of proposition, where a proposition is the same as a complex (a fact) and all complexes are propositions.¹¹ And it is similar to the contemporary linguistic view of facts, where all well-formed, indicative sentences describe states of affairs and facts are merely states of affairs that obtain, the ones described by true, indicative sentences – certainly the distinction between the existent and non-existent of states of affairs suggests actual and possible states of affairs. Naturally enough, there are those who have interpreted

9 "In a proposition a situation is constructed by way of experiment." 4.031; "'A state of affairs is thinkable': what this means is that we can picture it to ourselves." 3.001; "What is thinkable is possible too." 3.02.

10 Black, *Companion*, p. 45.

11 See Russell, *Principles*, pp. 139–40, though he does distinguish between propositions and asserted propositions. Cf. Russell's views about propositions in "Meinong's Theory of Complexes and Assumptions". Peter Hylton ("Beginning with Analysis") says that for Russell in 1903 and 1904, complexes are abstract objects with concrete components. It is tempting to draw a parallel with the distinction between states of affairs and propositions of recent philosophers such as Chisholm, Plantinga, and Bennett, who affirm that states of affairs and propositions are closely related and are abstract objects. But it is difficult to regard the states of affairs of the *Tractatus* as abstract objects, and the *Tractatus* might be a better guide to the interpretation of the *Principles*.

Wittgenstein's states of affairs as being things of this sort. But despite the similar terminology, and despite the probable influence of the *Tractatus* on the linguistic view of facts, the *Tractatus* differs from the contemporary view in holding a clear compositional view of facts: states of affairs are real units, their components are real, and there is a limited number of both. There is another difference in that Wittgenstein has a notion of *what is said* by a sentence, which we might identify with a proposition, that is quite distinct from a state of affairs. But the difficulties, I think, are inherent in the subject matter; what is needed is a clear ontological distinction between state of affairs and proposition.

There is a persistent tendency among philosophers to regard the content expressed by a sentence as a real unit. The eternal Platonic proposition is the best-known example; Russell's propositions as complexes of *The Principles of Mathematics* are a less well-known example. But Wittgenstein does not want or need such real units. His notion of the sense of a sentence, or what is said by a sentence, seems designed to avoid reification; there is no need for states of affairs as units as things that are expressed by sentences whether true or false. For its account of the truth of elementary sentences, the system of the *Tractatus* needs only the senses of elementary sentences and atomic facts, where only atomic facts are real units. This is why I think it is best to adopt the interpretation that a *Sachverhalt* is an atomic fact.

Since Wittgenstein intends to explain the truth of complex sentences in terms of truth functions of elementary sentences and not in terms of correspondence with facts, there does not appear to be much use for *facts* other than atomic facts. Although at one point a fact is, indeed, said to consist of atomic facts (4.2211, cf. 2.034), it is not clear from the *Tractatus* itself how atomic facts are put together to form a fact. We have to turn to the letter to Russell of 19 August 1919, which indicates that a fact is formed from atomic facts by something corresponding to conjunction for sentences.¹² But despite the correspondence that Wittgenstein speaks of between a fact and a conjunction of elementary sentences, it seems that the truth of a conjunctive sentence is nevertheless to be explained in terms of a truth function and not in terms of correspondence with a conjunctive fact. The difficulty with facts as "ontological conjunctions" of atomic facts is that such facts appear ontologically arbitrary. Given a large collection of elementary sentences, an even larger number of conjunctions

12 Cf. Black, *Companion*, pp. 31, 37.

can be formed, many of which will not describe any naturally given unity.¹³

However, it is important to the doctrines of the *Tractatus* that sentences themselves be facts; they are perhaps the most important examples of non-atomic facts. It must be assumed that a sentence, as a non-atomic fact, is formed from atomic facts by the objective correlate of conjunction, though the *Tractatus* does not actually say this, and I confess that I for one find it difficult to believe.

3.2 TRUTH AS ISOMORPHISM BETWEEN SENTENCE AND STATE OF AFFAIRS

Atomic facts are composed only of things called ‘objects’, which, in the opinion of many interpreters, are not ordinary objects, so for emphasis they are often called ‘Tractarian objects’. Similarly, atomic sentences are composed entirely of symbols that refer to objects – the *Tractatus* calls them elementary sentences, but from now on I shall call them atomic sentences for the sake of consistency with what will follow. Objects are such that they “fit into one another like the links in a chain” (2.03) to form atomic facts. “The determinate way in which objects are connected in a state of affairs is the structure of the state of affairs.” (2.032) This arrangement of Tractarian objects in an atomic fact can be thought of as analogous to the spatial arrangement of physical objects within a spatial whole. Strictly speaking, however, “Form is the possibility of structure” (2.033), and it is used in the *Tractatus* rather as the word ‘arrangement’ can be used to mean something possible or something actual, while ‘structure’ is used of something that actually obtains.¹⁴ The form of an atomic fact is analogous to a spatial shape or arrangement understood as a universal, because a “form” is something that different atomic facts can have in common; an atomic fact, for example, is supposed to have the same form as the sentence that describes it (3.21).

In order for an atomic sentence to have a sense, it must be possible for it to describe an atomic fact. Speaking somewhat informally, it could be said that what it describes must be a possibility, though it must not be said that it describes a possible atomic fact. The rules that govern how words or symbols are put together to form an atomic sentence are supposed to

13 Black argues that with an infinity of atomic facts, there is a sense in which a complex fact would be infinitely divisible. *Ibid.*, p. 209.

14 The term ‘form’ is replaced by ‘logical form’ after the introduction of the distinction between spatial pictures and logical pictures.

guarantee that what it describes is possible.¹⁵ There are two conditions for an atomic sentence to have a sense. First, each component of the atomic sentence must be correlated with an object in the world, the relations between each component of the atomic sentence and an object in the world being what are normally called reference relations. Secondly, the structure of the atomic sentence, the way in which its components are arranged, must be a structure that it is possible for an atomic fact to have. This is the 'logical form' of the sentence or the 'form of its sense'.

The logical form and the reference relations are both aspects of the sense of a sentence; if both are present, then we can say that the sentence has a definite sense.¹⁶ There is no need for there to be an actual atomic fact that the sentence describes, providing that the components of the sentence refer to objects and the logical form of the sentence is a possibility for those objects. The presence of these two factors are conditions for an atomic sentence to have a definite *sense*, or we can say that they are conditions for a sentence to be sensed. They are not presented as two parts of a real unit that is the sense of a sentence. Although Wittgenstein uses Frege's terms 'sense' and 'thought', he does not suppose that these terms correspond to things in the Fregean third realm, or in a world of abstract objects. An atomic sentence points in a complex way towards this world, not towards a Platonic entity.¹⁷

In this respect, Wittgenstein's theory of the sense of an atomic sentence is similar to Russell's multiple relation theory of belief. For Russell, a person who believes an atomic proposition is related in a complex way with certain objects in the world; while for Wittgenstein, an atomic sentence is related in a complex way with objects in the world. Neither the content of a belief for Russell, nor the sense expressed by a sentence for Wittgenstein, is to be understood as an independently existing unit. One of the main problems with Russell's theory is knowing where to locate the logical form; for example, in false belief it plays a role but does not appear to occur anywhere. Wittgenstein neatly solves this problem by suggesting that an atomic sentence is itself a fact with the required logical form. Unfortunately, not only does Wittgenstein's idea of fact-to-fact isomorphism face insurmountable difficulties, there are also difficulties in extending it to give a plausible theory of belief.

15 For a development of this view of modality, see Newman, *The Physical Basis of Predication*, chap. 3.

16 Cf. *Tractatus*, 3.13, and Black, *Companion*, p. 101.

17 Cf. Black, *Companion*, pp. 120–21.

We can now state the conditions for the truth of an atomic sentence implicit in the doctrines of the *Tractatus* as the first of three accounts of correspondence for sentences.¹⁸

A. Tractarian Correspondence

The conditions for an atomic sentence to have sense are that each component of the sentence must refer to one and only one Tractarian object and it must be logically possible for those objects to form an atomic fact that has the logical form of the sentence.

An atomic sentence with sense is true if and only if:

1. The objects referred to by the components of the atomic sentence actually form an atomic fact.
2. The logical form of the atomic fact is the same as the logical form of the atomic sentence.¹⁹
3. The order of the components of the atomic sentence reflects the order of the components of the atomic fact.²⁰

A sentence is not true (that is, false) by default if any of these conditions should not hold.

This is a correspondence-as-congruence version of the correspondence theory, to use Kirkham's term, since there is a congruence, or isomorphism, between the truth bearer, namely, the atomic sentence, and the truth maker, namely, the atomic fact – they have the same form and there is a one-to-one correlation between components.²¹

The third condition is required because the sentence 'Desdemona loves Cassio' would be made true by the fact of "Desdemona's loving Cassio" and not by the fact of "Cassio's loving Desdemona". These two facts have the same components, and from what Wittgenstein says about the logical form of facts it appears as though they have the same logical form as well, though apparently Russell once entertained a different notion of logical

18 Cf. *Tractatus*, 2.222 and 4.25. Anthony Kenny argues that the picture theory of truth persists in Wittgenstein's philosophy after the abandonment of the metaphysics of the *Tractatus*. See Kenny, *Wittgenstein*, p. 224ff. Hacker argues against in "The Rise and Fall of the Picture Theory", p. 99.

19 If the components of an atomic fact include one object with a predicative role, as must be the case on a realist as opposed to nominalist interpretation, then there is only one general logical form that the atomic fact could have, and so 2 follows from 1. That there is only one logical form indicates that the logical form is determined by the object with the predicative role.

20 Cf. Wisdom, *Problems of Mind and Matter*, p. 203.

21 Kirkham, *Theories of Truth*, p. 119.

form.²² Despite the fact that a direction condition is not mentioned in the *Tractatus*, there are well-known linguistic devices that conventionally and easily represent the order of particulars under a relation, which make it clear that Desdemona loves Cassio is what is intended, for example, rather than Cassio loves Desdemona. In symbolic logic and non-inflected languages, the order of the proper names indicates the order of particulars under a relation; while in an inflected language, it is the word endings.

But solutions of this “narrow” direction problem make no sense unless the wide direction problem has been solved: in other words, a distinction has to be made between words and symbols that refer to particulars and those that refer to things with a predicative role (such as relations).²³ This distinction could be made by a convention regarding the order of words or symbols, or by a convention regarding the type of symbols used. For example, in the sentence ‘*Rab*’ the ‘*R*’ is understood to refer to something with a predicative role both on account of its position and on account of its being capital. But in the discussion of the composition of sentences in the *Tractatus*, no distinction is made between objects that are particulars and those that have a predicative role, which has, of course, led to a division of opinion as to whether one was intended. It would make sense on a nominalistic interpretation, where objects are confined to particulars, to suggest that the order of names in an atomic sentence reflected the order of Tractarian objects within the corresponding atomic fact. But on a realist interpretation, where objects can include relations, the order of the components of the atomic sentence would probably have to indicate both whether an object has a predicative role or not and the order of particulars under the relation.

Finally, it should be noted that the *Tractatus* says nothing about the relation of reference that holds between the names that are components of sentences and Tractarian objects. It merely assumes implicitly that it is possible to set up conventional reference relations such that each name refers to one and only one Tractarian object.

3.3 THE NOMINALIST ACCOUNT OF ATOMIC FACTS

The nature of Tractarian objects is one of the specifically metaphysical issues in the interpretation of the *Tractatus*. In particular, it is not clear

22 See Chapter 3, n. 42.

23 Wittgenstein must have been aware of the narrow direction problem associated with Russell’s multiple relation theory of truth. See Griffin, “Russell’s Multiple Relation Theory of Belief”, pp. 218–26.

whether things with a predicative role are included among Tractarian objects. The *Tractatus* does not say that *objects* are divided into particulars and universals, or into concepts and objects, as it might have done in view of the influence of both Russell and Frege. It merely allows that objects differ in logical form. Not being given any examples of Tractarian objects, and not being able to produce any things with the required metaphysical simplicity, it is very difficult to know what Wittgenstein intended. All we know is that he posited the existence of such objects because he believed that otherwise it would not be possible for sentences to have meaning nor for the world to have substance – he is apparently committed to metaphysical atomism, the doctrine that since the reality of the whole is derived from the reality of the parts there must be ultimate parts.

There are, as a consequence, two different interpretations of the *Tractatus*: the realist interpretation, which claims that Tractarian objects can be divided into what a believer in universals would usually call universals and particulars, and the nominalist interpretation, which claims that Tractarian objects include only what others would call particulars, or individuals, or Fregean objects.²⁴ In this section, I consider the nominalist interpretation, which, for the sake of convenience, I assume takes the components of atomic facts to be restricted to particulars of some kind or another. The study of the nominalist and realist interpretations will show that a true atomic sentence cannot be isomorphic to an atomic fact, and it will at least illustrate the difficulties nominalists have in constructing a correspondence theory of truth.

Consider the atomic fact of “the knife’s being to the left of the book”, an atomic fact that hitherto we should have described by the sentence ‘the knife is to the left of the book’. If this atomic fact does not have a

24 For the nominalist interpretation, see Anscombe, *An Introduction to Wittgenstein’s Tractatus*, chap. 7; Copi, “Objects, Properties, and Relations in the *Tractatus*”; and Carruthers, *Tractarian Semantics: Finding Sense in Wittgenstein’s Tractatus*. *Tractatus*, 3.1432, seems to support the nominalistic interpretation, though it may be a continuation of 3.1431, which is about spatial pictures, and it is presumably a commentary on 3.143. For arguments that it does not support the nominalistic interpretation, see Hacker, *Insight and Illusion*, pp. 68–69, and Fahrnkopf, *Universals in Wittgenstein’s Tractatus*, pp. 28–30; cf. Black, *Companion*, p. 67; Anscombe, *An Introduction to Wittgenstein’s Tractatus*, p. 89. Those that reject the nominalistic interpretation often argue that it is absurd; cf. Urmson, *Philosophical Analysis*, p. 80–81. See also Allaire, “The *Tractatus*: Nominalistic or Realistic?”; Stenius, *Wittgenstein’s Tractatus*; Black, *Companion*, p. 57; Hacker, *Insight and Illusion*, p. 67; Peterson, *Wittgenstein’s Early Philosophy*; and, particularly, Fahrnkopf, *Universals in Wittgenstein’s Tractatus*. Brian Skyrms’s “Tractarian Nominalism” is for the purposes of this discussion in the realist camp. In the *Notebooks* (16. 6. 1915, p. 61), Wittgenstein says that “[r]elations and properties, etc. are objects too.”

relation, or anything with a predicative nature, as a component, then its only components are particulars, namely, the knife and the book. The logical form of this atomic fact, that is, the way in which the particulars are connected together,²⁵ can be represented by '() is to the left of ()', which could be understood as signifying "some particular having the relation is to the left of to some particular". The logical form of the atomic fact is, in fact, remarkably similar to a universal on a realist account. Nominalists, however, would not want to ascribe reality to logical forms any more than they would want to ascribe reality to universals.

According to the *Tractatus*, the way in which particulars in an atomic fact are connected together is the same as the way in which names in the corresponding atomic sentence are connected together, the result being an isomorphism between sentence and fact. The sentence is a picture of the fact. The relation between the two proper names in the sentence will, therefore, be the same as the relation between the two particulars in the atomic fact, so that the atomic sentence will, in fact, be 'the knife the book', which is a very odd sort of sentence.

The Tractarian notion of picture is a general one. There are many different types of picture: there are spatial pictures of spatial situations and there are coloured pictures of coloured situations, and so on. These pictures differ in what is called pictorial form. The type of pictorial form that Wittgenstein wants to focus on is logical form, where "A picture whose pictorial form is logical form is called a logical picture." (2.181) Logical form is the most important type of pictorial form, since all pictures are also examples of logical pictures, and presumably there are pictures that are logical pictures without being any other sort of picture. If the form of the picture is the same as, or similar to, the form of the situation it depicts, we could call it an *isomorphic picture*. But there is also a possibility of *analogue pictures*, where the form of the picture is only analogous to the form of the situation depicted.²⁶ Wittgenstein's example is of a piece of music being represented in a variety of ways (4.014-1). The relation between two notes of one being higher in pitch than another represented in musical notation by the symbol for one being spatially higher up the stave than the symbol for the other is the most obvious example.²⁷

25 See *Tractatus*, 2.032.

26 Cf. Goodman, *Language of Art*.

27 There are a number of types of analogue picture of the relation between two notes. Besides the spatial relation between two symbols on a stave, a sequence of two letters, such as DA, is also used. Then there is the spatial relation between two bumps in the groove of a vinyl disc, or two finger positions on the neck of a violin, or the relation of two keys on the

In the *Tractatus* the notion of a spatial picture, the most familiar type of picture, is used merely as a heuristic device to introduce the notion of a logical picture. A spatial picture of a spatial fact is something like a drawing, where there is a possibility of identity of arrangement, since the components of a spatial picture can be arranged in the same way as the components of the atomic fact being pictured. For example, if three particulars are arranged in a triangular formation, then a spatial picture of that atomic fact will have the same spatial arrangement, either in being exactly the same triangular arrangement – true identity of arrangement, congruent triangles – or more likely in being the same type of triangular arrangement – similar triangles.

The main error of the nominalist interpretation is that it confuses logical pictures with spatial pictures. If the sentence ‘the knife the book’ were used to describe the knife being to the left of the book, then the sentence ‘the knife the book’ would be more like a spatial picture than a logical picture. The sentence and the fact have spatial form in common, and consequently spatial form is the pictorial form. This can be seen from the fact that if the proper names ‘the knife’, ‘the book’, and ‘the fork’ were arranged at the vertexes of a triangle, the result would be a diagram, which is a spatial picture, and it would not be recognizable as a piece of language.

However a logical picture works, the spatial arrangement of the symbols that constitute a sentence is not, in general, the same as, or similar to, the arrangement of the components of the corresponding atomic fact. The reason for this is that the relations between the symbols that constitute a sentence are confined to linear sequence. A sentence of ordinary language is primarily a linear sequence of words. More exactly, it is a nested sequence, that is, a sequence of words that are themselves sequences of letters: a sentence could be read first (if humans were computers) as a simple linear sequence of letters and spaces, from which the nested structure can be inferred. Sentences of logic are read first as a simple linear sequence of brackets and other symbols, with the brackets indicating the nested structure. For the present, however, we are interested only in atomic sentences, which in logical notation are simple sequences of symbols.

There are some situations where particulars in the world are arranged in a linear sequence, such as in the simple case of the knife being to the left

keyboard of a piano, and so on. The reality being pictured here is the relation between pitches, which are *qualia*, while frequency is merely the property of the sound waves that are the causes of the *qualia*.

of the book. But they are unusual. Most situations are not linear sequences of particulars, even though they are described in language by means of linear sequences. Even the arrangement in a linear sequence of the knife and the book cannot be an objective relation between those particulars, because the starting point is a matter of arbitrary choice; whether the knife is to the left of the book depends on how you are looking at them.

The relation of juxtaposition, just a matter of one particular being next to another, also holds between the knife and the book. It is not an order relation like “is to the left of”; and unlike order relations, juxtaposition is objective. Juxtaposition and linear sequence are not even similar relations, because they have different determinables, whereas the shapes of two triangles, for example, fall under the same determinable shape, namely, that of being triangular. In the case of two particulars, it is conceivable that the juxtaposition of two words or symbols could be used to represent the juxtaposition of two particulars. It would then be a matter of convention that the sentence ‘the knife the book’ described the knife being juxtaposed to the book rather than the knife being to the left of the book – since the relations are different, the facts are different. But if language is limited to the device of linear sequence and we accept the nominalist interpretation of the *Tractatus*, then it would in fact be impossible for a sentence to describe the objective relation of juxtaposition. All that could be described would be the non-objective order relations such as “is to the left of”.

According to the nominalistic interpretation of atomic facts, a relation between two particulars is not represented by a separate symbol; it is *shown* to hold between two particulars by a relation of “linear sequence” between the corresponding words or symbols. Even such simple relations as spatial relations between three particulars that are not in a straight line therefore present considerable difficulties. The only relations that a linear sequence of symbols could possibly show in the required sense are relations that are types of linear sequence. The nominalistic interpretation has the further difficulty of not being able to account for monadic predication, since in general a single symbol cannot show that a particular has a certain property by itself having that property.²⁸

28 In the *Tractatus*, only internal properties can be reflected in the structure of the symbol. The structure of a symbol can show that the corresponding object has a certain internal property, but this method cannot be used to *say* that it has that internal property. Indeed, it has sometimes been suggested that Tractarian objects are never the components of monadic facts, but are only components of relational facts. Cf. Keyt, “A New Interpretation of the *Tractatus* Examined”. Spatial points are candidates for Tractarian objects, since spatial points in one dimension do not have monadic properties, but do enter into linear order relations.

Tractarian objects are indeed mysterious. Despite a number of suggestions no one is really sure that we know of any examples. But, curiously, Wittgenstein is interested in the conditions for all representation, so that the logical grammar of the sentences that describe Tractarian objects is the logical grammar that is common to ordinary language as well as to symbolic logic: “In fact, all the propositions of our everyday language, just as they stand, are in perfect logical order.”²⁹ Whatever Tractarian objects may be, if the nominalist interpretation of the *Tractatus* were true, this would not be the case.

Apart from the form of the symbols themselves, logical pictures are limited to the device of linear sequence. For this reason it appears that logical pictures have to make use of predicate symbols as well as symbols that refer to particulars. But once predicate symbols are admitted as components of sentences, there is no longer an isomorphism between a sentence as a concatenation of symbols and an atomic fact as a concatenation of corresponding nominalistic particulars. Nominalism, as opposed to the nominalistic account of atomic facts, would have to be preserved by means of non-referential semantics for predicate symbols – though some opponents of nominalism will remain unconvinced that the rules of the non-referential semantics will in fact avoid reference to objective, general features of the world.

3.4 THE REALIST ACCOUNT OF ATOMIC FACTS

In this section I adopt a generalized realist interpretation where *objects* include properties and relations as well as what are normally thought of as particulars or individuals. I assume that any particular and any genuine universal could be a component of an atomic fact, since the conditions for a sentence to have sense and to be true are the same for general predicative sentences as for Tractarian atomic sentences. The result is two accounts

Although it is interesting to find something that appears to fit the bill, spatial points do not appear substantial enough to build a world out of, and, unfortunately, the relations between them are internal properties, essential properties that in some way constitute their nature. In the absence of other sorts of particular, they would not have any external properties, so that there would be nothing contingent for us to say about them in the language of the *Tractatus*. How such atomic facts could be combined by means of the objective correlate of conjunction to give us the world we know would remain one of the great mysteries. Carruthers put forward a model in which each elementary proposition describes a relation between three spatial planes and a point of time, which intersect at a mass point. *The Metaphysics of the Tractatus*, pp. 139–40.

29 *Tractatus*, 5.5563. Cf. Black, *Companion*, p. 24.

of the truth of predicative sentences that apply to all predicative sentences in which the proper names refer to genuine particulars and the predicates refer to genuine universals. Though the theory developed goes beyond a mere interpretation of the *Tractatus*, the term ‘object’ will still be used in its Tractarian (and Russellian) sense to include both universals and particulars.

Not only does the *Tractatus* speak of atomic facts and atomic sentences as having logical form, it also speaks of objects as having logical form (2.0233). Objects possess two sorts of property: external (or material properties), which for our purposes are just ordinary properties, and internal properties, which are properties that it is unthinkable an object should not possess and which determine in a very general way what sort of object it is. The logical form of an object is its internal properties. The logical form or internal properties of an object determine how it can combine with other objects to form atomic facts; in fact, the internal properties of all the objects that there are determine all the atomic facts that are possible, and consequently internal properties would play an important role in a Tractarian theory of modality. Despite the obscurity of the objects of the *Tractatus*, it appears that if an object can be known, its internal properties can, indeed, must, be known: “If I am to know an object, though I need not know its external properties I must know its internal properties” (2.01231).³⁰

There is a fundamental distinction between objects and logical form: an external property is itself an example of an object, while an internal property is part of the logical form of an object. Ideally, a word or a symbol as a component of a sentence should *show* by its structure the logical form of the object that it represents, and thereby show how that object can “concatenate” with other objects to constitute an atomic fact (4.126).³¹ According to the way of thinking of the *Tractatus*, an atomic sentence can be used to *say* that a particular has an external property, but cannot be used to *say* that a particular has an internal property. That is something that can only be *shown*.

30 Internal properties bear some similarity to Putnam’s syntactic and semantic markers. Despite the fact that some internal properties could be thought to be included in the sense of a proper name (cf. Bell, *Frege’s Theory of Judgement*, p. 62), Wittgenstein does not think that the names of objects have sense. *Tractatus*, 3.22. His idea, presumably, is that what a name shows and what a sentence shows are very different things; there is also more to the sense of a sentence than is given by the senses of its components. Michael Dummett claims that a word shows what its sense is. See *Frege, Philosophy of Language*, p. 227.

31 Cf. Black, *Companion*, pp. 197–200.

The property of being a particular and the properties of being a monadic or dyadic universal determine in a very general way what kind of thing it is and are properties that govern how objects fit together to form atomic facts and, consequently, are internal properties. Since on the realist interpretation an object is either a particular or belongs to one of the different types of universal, each different type of object finds a place in the following diagram:

Particulars	a	b	c	...
Monadic universals	$F()$	$G()$	$H()$...
Dyadic universals	$R()()$	$S()()$	$T()()$...
	\vdots			

The empty brackets indicate a place that can be filled by a particular. To adopt Frege's terminology we can say that particulars are saturated, while properties, or monadic universals, are singly unsaturated, and relations, or dyadic universals, are doubly unsaturated, and so on. If an atomic fact is formed by putting together only particulars and universals, then each atomic fact will consist of one universal and a number of particulars according to the valence of the universal, just as in Russell's atomic facts.

The determinables that a particular falls under are further examples of internal properties, since they determine in a very general way what kind of thing it is and govern to some extent which external properties it can possess.³² For each determinable property, such as the colour red, there is a class of determinate properties, the specific shades of red, each of which is said to be subordinate to its determinable property.³³ There are characteristic entailment patterns associated with a determinable and its determinates: if an object possesses a certain determinate, then it also

32 In the *Tractatus*, all inferences are supposed to be made using propositional and predicate calculus based on a truth-functional understanding of the logical constants. For this reason, atomic sentences were supposed to be logically independent (4.211, 5.134). Consequently, Wittgenstein had difficulty with the entailment patterns associated with determinates and determinables (6.3751). In his paper "Some Remarks on Logical Form", he suggested that it is possible for atomic sentences to exclude one another, even if they could not contradict. Since I do not accept Wittgenstein's restrictions on the types of inference possible, I see no reason why atomic sentences should be logically independent. See Newman, *The Physical Basis of Predication*, pp. 64–67, for a discussion of internal properties.

33 Colours are the most obvious examples of determinates and determinables and an example that Wittgenstein frequently used. However, for the *Tractatus* they are only a convenient illustration; it must not be supposed that determinate colours are genuine Tractarian objects (2.0232).

possesses the determinable corresponding to that determinate, and if an object possesses a certain determinable, then it also possesses one and only one of the determinates of that determinable. These entailment patterns are constraints on which determinates a particular can possess, in other words, on which external properties a particular can possess. The determinables that particulars possess, such as being massive or coloured, therefore contribute to determining which atomic facts are possible.³⁴ If universals have properties or have relations between them, then these second-order properties and relations would also be examples of internal properties of universals.

In the atomic fact described by the true atomic sentence ‘the knife is next to the book’, the relation “is next to” is the way in which the particulars, the knife and the book, are related to each other. But on the realist interpretation the relation “is next to” is itself a component of the atomic fact, and the logical form is the determinate way in which the particulars and the universal are connected together to form the atomic fact. In the same way that the relation is something that several pairs of particulars could have in common, so also the logical form is something that several atomic facts could share. If the way in which the particulars are related to each other can be represented by the symbol ‘ $R() ()$ ’, then the way in which the particulars and the universal are connected together to form an atomic fact can be represented by the symbol ‘ $[] () ()$ ’, which, if it signifies anything at all, signifies the logical form that many different atomic facts could possess. In the same way that the round brackets are to be filled with symbols that refer to particulars, the square brackets are to be filled with a symbol that refers to a universal, in this case a dyadic universal. It should be noted, however, that the logical form is the way in which the objects fit together, or fit into one together; it is not something extra that enables them to fit together. Strictly speaking, they are enabled to fit together by their internal properties.

The bracket notation allows the internal properties of saturatedness and valence (monadic, i.e., mono-unsaturatedness; dyadic, i.e., di-unsaturatedness; etc.) to be represented, but there is no reason why other

34 The determinable “massive”, which applies to ordinary physical objects, has subordinate to it an infinite range of determinates, namely, all the masses a particular could have, such as 1 kg, 2 kg, 3.56 kg, and so on. In this way the determinable “massive” determines an axis in a sort of space, and the set of determinables a particular falls under determines a sort of space. Cf. Peterson, *Wittgenstein’s Early Philosophy*, p. 22 on *Tractatus*, 2.013 ff. For a discussion of two possible interpretations, see Wahl, “Impossible Propositions and the Forms of Objects in the *Tractatus*”.

internal properties should not also be represented – or shown, as the *Tractatus* would put it. Although ‘ $[]()()$ ’ signifies a logical form that many atomic facts can have in common, there is a more specific logical form that a more restricted class of atomic facts can have in common, namely, that signified by ‘ $[]_r()A()_B$ ’, where it is understood that the brackets are not only to be filled by particulars and universals, but by particulars and universals with certain internal properties. Each subscripted letter A , B , or r represents further internal properties of a component of the atomic fact described by ‘ Rab ’. ‘ A ’, for example, could indicate a determinable a particular has to fall under and ‘ r ’ could indicate a second-order property of a universal that characterizes what sort of universal it is.

‘ $[]()()$ ’ signifies the most general and ‘ $[]_r()A()_B$ ’ signifies the most specific logical form of the atomic fact described by ‘ Rab ’, including all the internal properties of the universal and particulars concerned.³⁵ In between, there are logical forms varying in degree of generality depending on how many internal properties are specified or understood. It will be seen that though it is possible for other internal properties to be shown by components of a sentence, and the most specific logical form could be regarded as relevant to whether a sentence has sense or not, it is only the general logical form that is relevant to the conditions for a sentence to be true.

Let us now consider why it is impossible from the realist point of view for a sentence to be isomorphic to the atomic fact that it describes. Consider a simple, relational atomic fact with two particulars a and b and the relation R as components, such as the knife’s being next to the book, a fact described by the sentence ‘ Rab ’. The difficulty for isomorphism lies in the fact that if the sentence itself is to be regarded as an atomic fact,³⁶ it must be regarded as having four components: the three symbols, ‘ R ’, ‘ a ’ and ‘ b ’, which are particulars, and the relation between the symbols, which is a three-place spatial relation, a linear sequence relation that I represent by ‘ L ’.³⁷ Isomorphism is not a possibility because the fact described has

35 If $[]()()$ were a universal, then $[]_r()A()_B$ would be a structural universal.

36 Wittgenstein thought that only if a sentence were regarded as a fact would it be possible to explain why the elements of a sentence form a unity rather than a set of names (*Tractatus*, 3.14–3.142; cf. Black, *Companion*, pp. 101–2). But an ordinary particular also has a form of unity.

37 To discuss the logical form of a sentence, the sentence has to be considered as a sequence of particulars, and therefore as a sequence of tokens as opposed to types, though the symbols that constitute a sentence function by differing in type. But the important and relevant

three components, two particulars and a universal, whereas the sentence that describes it has four components, three particulars and a universal. The logical form of the atomic fact described, namely, $[]()()$, is of a different type from the logical form of the atomic sentence that describes it, thought of as a fact, namely, $[]()()()$. Consequently, there is no possibility of sameness of form. This difficulty with the idea of isomorphism between sentence and fact was noted by Russell in 1919, three years before the *Tractatus* was published in English.³⁸

An atomic sentence in symbolic logic such as ‘*Rab*’ does not instantiate the logical form of the atomic fact it describes; rather, it shows it, represents it, or could be said to determine it. It determines the logical form by means of linear sequence and the form of the symbols. That ‘*R*’ is capital and, according to one convention, that it is first in the sentence, shows that ‘*R*’ refers to something with a predicative role. That ‘*a*’ and ‘*b*’ are lowercase letters and do not occur first show that they refer to particulars. And that there are just two proper names shows that the relation is dyadic. This is how the sentence shows the general logical form $[]()()$. And the order of the proper names reflects the order of particulars under the relation. It would be possible for other aspects of the logical forms of objects to be shown by the form of the symbols so that the most specific logical form could also be shown. Ordinary language sentences, depending on the type of language, use some of these devices, as well as others, to achieve the same end.

Since an atomic sentence does not instantiate the logical form of the atomic fact that it describes, it is not a picture of any type. As a replacement for the Tractarian notion of logical picture, we could use the term ‘logical representation’ for anything that describes an atomic fact and determines its logical form by some sort of linguistic device such as linear sequence and the form of the symbols. Although written sentences use spatial linear sequence, temporal linear sequence is also used, as in a spoken sentence. And if there were such things as Platonic propositions, they would presumably use some sort of abstract linear sequence analogous to the linear sequences in mathematics.

differences in type are based entirely upon minor external properties, which do not figure in the logical form of sentences, that is, in the subscript position. If external properties were allowed to occupy the subscript position, then again it is clear that the logical form of the sentence would differ from that of the atomic fact described, because they would still have different properties in the subscript position. Again, there is no possibility of a structure that is shared by atomic facts and the sentences that describe them.

38 Russell, “On Propositions”, pp. 315–16.

3.5 CORRESPONDENCE FOR SENTENCES WITH AND WITHOUT FACTS

The Tractarian conditions for an atomic sentence to have sense and for an atomic sentence to be true assumed that an atomic sentence could be isomorphic with an atomic fact, and assumed that atomic facts were composed of objects that were metaphysically atomic. And though that theory allowed that objects could differ in logical form, no explicit assumption was made that one of the objects played a predicative role while the others were particulars. But we have seen that an atomic sentence cannot be a logical picture of an atomic fact; it is at best a logical representation. And we have seen that one component of a predicative sentence must refer to something that plays a predicative role while the others refer to particulars. Moreover, there is no point in confining the discussion to hypothetical metaphysically basic objects, since the conditions for the truth of all predicative sentences will be the same; all that is required is that they be about genuine particulars and genuine universals. The Tractarian conditions need to be modified to take these things into account.

B. Correspondence with Facts

The conditions for a predicative sentence to have sense are that each component of the sentence must refer to one and only one object, one component referring to a universal, the others to particulars, and the number of components referring to particulars must equal the valence (adicity) of the universal.³⁹

A predicative sentence with sense is true if and only if:

1. The universal and particulars referred to by the components of the sentence actually form a fact.
2. The order of the proper names in the predicative sentence reflects the order of the particulars in the fact.

A sentence is not true (that is, false) by default if either of these conditions should not hold.

Instead of the logical form of the sentence being the same as that of the fact, as in the Tractarian isomorphism version, the logical form of the fact is here determined by the physical form of the sentence and its components. But there is no need to include this as a separate condition, since there is only one *general logical form* that a fact formed from a given

³⁹ A sentence has sense in this sense if it says something about the world. Sentences about fictional characters do make sense to us, in a sense; but how they make sense to us is in need of explanation. Such explanations are beyond the scope of this book.

universal and the right number of particulars could have. That there is only one general logical form indicates that the logical form is determined by the object with the predicative role.

I have given the weakest condition for a predicative sentence to have sense, namely, that the number of components referring to particulars must equal the valence of the universal. A stronger condition would be that it must be logically possible for that universal and those particulars to form a fact. However, in time past it would have made sense to have investigated whether there were a finite number of prime numbers or whether gold had the atomic number 80, so it seems that such sentences have sense, even though both are impossible.⁴⁰ Russell's example, 'quadruplicity drinks procrastination', on the other hand, is in a different league. A case could be made that this sentence does not express a sense, because quadruplicity is in a category of thing far removed from the categories of thing that can drink and procrastination is in a category of thing far removed from the categories of thing that can be drunk. But it is difficult to know where to draw the line. It appears, then, that the conditions for a predicative sentence to have sense could be investigated further, though strictly speaking it does not concern the formulation of the correspondence theory of truth. It should be remembered that this issue concerns only predicative sentences, and not sentences generated by the use of logical connectives.

There is more to how the components are arranged to form a fact than is shown by the general logical form, since the general logical form as we have understood it does not take into account the order of the particulars under the relation.⁴¹ As I mentioned before, at one time Russell appeared to include the order of the particulars under the relation as part of the logical form.⁴² We can use the term 'mode of combination' for how the

40 Kripke claims that the proposition "gold has atomic number 79" is logically necessary. It could be argued, however, that the supposed necessity of this truth has to do with reference, that we should not call something gold if it had a different atomic number. On the other hand, there is also a type of physical necessity here in that it is a matter of physical law that there is an element with atomic number 79 and a certain conjunction of properties.

41 A predicative sentence may also determine a specific logical form, but only the general logical form is relevant to the truth of the sentence. The more specific logical forms show that the components of the fact must be of a certain type, but it is only what is said about an object that is relevant to the truth of a sentence.

42 It appears as though the atomic facts described by 'Rab' and 'Rba' have the same logical form. If not, specifying the form would involve specifying which particular went where. On p. 113 of *The Theory of Knowledge*, Russell attempts a criterion for when two complexes (facts) have the same form: "two complexes have the same form if the one becomes the other when the constituents of the other are successively substituted for the constituents

components are arranged in a fact, in a sense that includes both the general logical form and the order of components. In a non-inflected language and in symbolic logic the order of the proper names represents the order of the particulars under the relation, while in an inflected language the word endings perform that function.

In this version of the correspondence theory for predicative sentences, there is a one-to-one correlation between the components of the predicative sentence and the components of the fact, but there is no isomorphism. To revert once more to Kirkham's convenient terminology, it is a correspondence-as-correlation theory of truth as opposed to a correspondence-as-congruence theory of the truth.⁴³ Although the theory still admits facts as entities with logical form as their structure, the absence of isomorphism implies that there is no motivation from considerations concerning truth to regard facts as entities. Such motivation would have to come from elsewhere, from considerations concerning causality, for example.⁴⁴

One of the advantages of this version of the correspondence theory is that it gives a metaphysical explanation of the nature of logical form. It locates it in the world, as the structure of a fact, if there are facts. But if facts are not entities, as is argued in Chapter 6, and since logical form is not the structure of a sentence, either, then logical form is not the structure of any entity and will have to be given a different interpretation.

What an atomic sentence *shows* is the "characterization" of particulars by universals or the "instantiation" of universals by particulars, that *F* characterizes *a*, or that *a* and *b* instantiate the relation *R*, for example.⁴⁵ This is particularly clear for the atomic fact described by '*Fa*'. The general logical form of this atomic fact of "*a*'s having *F*" is [](), which is

of the one." But Russell says this does not work because "the substituted term should be in the same position in the new complex as the old term occupied in the old complex, and the sameness of position cannot be explained without the notion of form." It appears from this that the atomic facts described by '*Rab*' and '*Rba*' do not have the same logical form. But on p. 113 logical form is what is expressed by an open sentence '*Xxy*', which is similar to Wittgenstein's notion of a logical prototype (*Tractatus*, 3.315). Later, on p. 114, logical form becomes a fact, such as the fact that "something has some relation to something".

43 Kirkham, *Theories of Truth*, p. 119.

44 For a brief list of reasons, see Armstrong, "Classes are States of Affairs", and Chapter 6 below.

45 This is also the interpretation of the *Tractatus* adopted by J. O. Urmson and John Wisdom. See Urmson, *Philosophical Analysis*, pp. 80–81.

very much like "... having...". The general logical form could, in fact, be called the "mode of characterization". Speaking of a sentence such as 'Rab', Hacker says, "For here all words with a 'material' meaning seem to be distributed in a network of purely logical relations."⁴⁶ We could follow Hacker and call characterization a purely logical relation, or follow Wittgenstein and call it a formal relation. Characterization or instantiation is merely a difficult, but fundamental, metaphysical notion; *sui generis* perhaps, but vital to an ontology that admits universals. The general logical form, or mode of characterization, can be "located" by regarding it as an internal property of the universal, to use another idea from the *Tractatus*, since the universal determines the general logical form. The more specific logical forms cannot be regarded in this way, but then it is only the general logical form that is relevant to the truth of a sentence, and only the general logical form that can be regarded as the mode of characterization. This approach recognizes that the objects that the components of an atomic sentence refer to are not all of the same type, and in particular it recognizes the predicative role of the relation. The form of symbols and their linear sequence cannot perform the task set for it by the nominalist account of atomic facts, but they can, aided by suitable conventions, represent "characterization".

According to this point of view, speaking about logical form as a sort of structure would be merely a convenient way of speaking about how things are characterized, a way of speaking that is sometimes suggested to us by language. And speaking about atomic facts as units with structure would be a convenient and heuristically useful way of speaking – in the same way that talking about possible worlds can be convenient and heuristically useful. There would then be two ways of speaking. Speaking about facts and possible worlds as entities is convenient and heuristically useful but metaphorical, while the other way of speaking, though the ontologically correct way, has the disadvantage of being cumbersome. Providing we realize what we are doing, and know how to translate from one way of speaking to the other, there is no harm in speaking about atomic facts or possible worlds. It may even be possible to formulate theories in terms of atomic facts and possible worlds, but this will depend on the theoretical reliability of the translation to the ontologically correct way of speaking.

46 Hacker, *Insight and Illusion*, p. 70.

The conditions for a predicative sentence to have sense and for a predicative sentence to be true need to be further modified to take into account this understanding of the notion of logical form.

C. Correspondence without Facts

The conditions for a predicative sentence to have sense are that each component of the sentence must refer to one and only one object, one component referring to a universal, the others to particulars, and the number of components referring to particulars must equal the valence (adicity) of the universal.

A predicative sentence with sense is true if and only if:

1. The particulars referred to by the proper names in the sentence actually instantiate the universal referred to by the predicate in the sentence.
2. The order of the proper names in the sentence reflects the order of the particulars under the universal.⁴⁷

A sentence is not true (that is, false) by default if either of these conditions should not hold.

A predicative sentence determines a general logical form and this logical form is the basic way in which the universal characterizes the particulars, but there is no need to say this, since there is only one way that a given universal could characterize the particulars that instantiate it.⁴⁸

This account of correspondence for predicative sentences, like the other two, merely assumes that there are appropriate relations of reference between each proper name and one and only one particular, and between each predicate and one and only one universal; it assumes that there are particulars and universals, a realist assumption, and that it is possible to refer to them.⁴⁹ It assumes nothing further about the nature of the relation of reference or about how it is set up, which, for the sake of maintaining generality, is a good thing.⁵⁰

47 Cf. Wisdom, *Problems of Mind and Matter*, p. 203.

48 On the correspondence without facts account, the specific logical form ceases to have any particular significance. The internal properties that figure in the specific logical form could, however, be shown individually by various aspects of the sentence.

49 Cf. Horwich, *Truth*, p. 9. Horwich believes that “reference and truth are parallel notions”, an idea that goes back to Frege, but, being a minimalist, Horwich thinks it is a mistake to explain truth in terms of reference. In the three versions of the correspondence theory presented in this chapter, the truth of a sentence merely requires that its components refer.

50 The causal theory of reference does not require that a person using a word to refer to an object should know which object he is referring to, but requires instead that there should be a causal relation linking the use of the word to the object. It might be said that the causal relation constituted or formed the relation of reference, but I do not think that it can be

This version of the correspondence theory, like the earlier versions, could easily be extended to realms other than the paradigmatic spatio-temporal realm, such as purely temporal realms, visual fields, and the realm of abstract objects mentioned in the Introduction. The only difference required in the formulation of the correspondence theory for sentences that apply, for example, to the realm of abstract objects is to replace particulars with non-predicative entities, which are things that are subjects of predication only, and to replace universals with predicative entities, which is just a step in the direction of increased generality.

3.6 THE NOTION OF CONTENT

A number of philosophers, such as J. L. Austin, Richard Cartwright, and P. M. S. Hacker, have argued that sentences are not truth bearers, since in ordinary language we do not normally ascribe truth to sentences.⁵¹ They claim that what is true or false is what is asserted and what is believed, which is something that is expressed by the use of a sentence and cannot be identified with the sentence itself. This something can be called the ‘content’ of a belief or the ‘content’ of an assertion, or it can be called the ‘statement’ or ‘proposition’ expressed. Others take a more lenient view. Kirkham urges a healthy tolerance about the sorts of things that could be truth bearers, while both Russell at the beginning of the twentieth century and Alston towards its close regard what is believed as what is primarily true and sentences as secondary truth bearers. I return to the views of Russell and Alston in Chapter 7.

Suffice it to say for the moment that it is possible to give conditions for a sentence, that is, a sentence token, to be true, as has been shown in this chapter. So even if it were the case that our ordinary ways of speaking and thinking never countenance the idea that a sentence could be a truth bearer, a philosophers’ sense could nevertheless be given to the notion of truth as applied to a sentence. Even so, a sentence token is a truth bearer only on account of expressing a statement or proposition, which is something that can be believed by a person.⁵²

said that a relation of reference is nothing other than a causal relation. The causal theory does not apply in all realms; it does not apply to mathematical objects, for example.

51 Austin, “Truth”; Cartwright, “Propositions”; Hacker, *Insight and Illusion*, pp. 324–30.

52 Generally speaking, sentence tokens are created by persons with the intention of expressing propositions. On the other hand, there has been discussion of stones on a Welsh hillside rolling into position to form a sentence, such as ‘THE BRITISH RAILWAYS WELCOMES YOU TO WALES’ (see Richard Taylor, *Metaphysics*, p. 114), with not everyone agreeing that a

The *Tractatus* itself regards sentences as truth bearers, but distinguishes sentences from sentential signs and explains a sentence as a sentential sign in its projective relation to the world, in other words as a sentential sign with a sense.

I call the sign with which we express a thought a sentential sign. – And a sentence [Satz] is a sentential sign in its projective relation to the world.⁵³

There is a certain obscurity here. Is a sentence a sentential sign that meets certain conditions, namely, having a sense, or is a sentence some sort of combination of sentential sign and its sense? It seems to me that the former makes the most sense. It is reasonably straightforward to give conditions for a sentential sign to have sense and to be true; it is not so clear how to give conditions for the combination of sentential sign and its sense to be true.

Normally, when we speak of a sentence, we mean the obvious particular, the token, that is being used to express something, the mere marks on paper that convention endows with a sense so that they can be used to say something. Although in reality it is a person who says that “the knife is to the left of the book” and uses a sentence to do so, the Tractarian way of speaking that a sentence can also say that “the knife is to the left of the book” makes sense and conforms to at least one aspect of ordinary language. According to the three versions of the correspondence theory given in this chapter, it is the sentential sign that is true. A true sentential sign is related to the world in a certain way, but the first thing that it must be is a sentential sign with a sense.

Conditions can be given for two sentences to be similarly sensed, in other words, to be related to the world in the same way: the predicative sentence *A* is similarly sensed to predicative sentence *B* if and only if the conditions for *A*'s being true are the same as the conditions for *B*'s being true, in other words, they predicate the same relation of the same particulars in the same way, where ‘in the same way’ means primarily the same order under the relation. In section 65 of *The Foundations of Arithmetic*, Frege proposes the following definition: “The proposition ‘line *a* is parallel to line *b*’ is to mean the same as ‘the direction of line *a*

proposition is expressed in such cases. The Tractarian view, which I mentioned earlier, is that a sentence asserts something merely in virtue of being a well-formed sentence, from which it seems that such stones do express a proposition.

53 *Tractatus*, 3.12. Cf. *Tractatus*, 4, “Der Gedanke ist der sinnvolle Satz”, which could be translated “A thought is a senseful sentence.” For the *Tractatus*, it is pictures that are essentially true or false (2.21, 4.06).

is identical with the direction of line b' ". Similarly, we can stipulate that "sentence A is similarly sensed to sentence B " is to mean the same as "the sense of sentence A is identical with the sense of sentence B ". In this way we obtain a criterion of identity for the sense of a predicative sentence, which can be called its Russellian content, since it is individuated in the way Russell would individuate a proposition—and it is also the way a singular proposition is individuated. In addition, it might also be possible to formulate a notion of Fregean content, where the mode of presentation of the things referred to is taken into account, as in a Fregean thought.⁵⁴

This way of introducing senses of sentences as a class of things with an associated criterion of identity does not suggest that senses have any sort of reality, particularly when we remember that a sense is a "way" in which a sentence is related to the world and that the relation of a sentence to the world is conventional, anyway. Perhaps there are grounds here for regarding a sense as a fictional unit, but certainly not for regarding it as a real unit. Nevertheless, a true sentence is true only on account of having a certain sense, and if a certain sentence is true on account of having a certain sense, any sentence whatever that had that sense would also be true. Sentences can be regarded as truth bearers and the senses of sentences can also be regarded as truth bearers, but the combination of a sentence and its sense cannot be regarded as a truth bearer. Nothing in our discussion of sentences suggests that the senses of sentences should be reified and regarded as Platonic propositions, and nothing has suggested that facts as real units are required as truth makers.

3.7 AUSTIN'S THEORY OF TRUTH

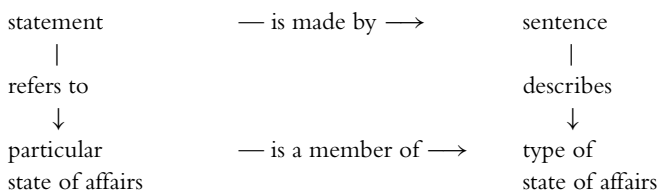
Austin's theory of truth is a correspondence theory that takes states of affairs (which should probably be understood as facts) to be the truth makers and statements to be the truth bearers, though his theory can be converted to one where sentences are truth bearers. His theory is interesting because instead of a statement being made true by particulars instantiating a universal, a statement is made true by a state of affairs instantiating a type of state of affairs, thereby apparently going to a higher level of predication.

54 It can be argued that what is believed is the Russellian content, while the Fregean thought is merely the guise under which it is believed. See Salmon, *Frege's Puzzle*. The Fregean content is of epistemological significance; it governs what conclusions the person doing the believing will draw and what further things the person is likely to believe or not believe.

Although statements are the primary truth bearers,⁵⁵ sentences and statements are closely linked: a sentence is used to make a statement, “A sentence is made up of words, a statement is made in words.”⁵⁶ At one point Austin appears to associate both a statement and a sentence with the event or act performed by a certain person on a certain occasion. On the other hand, he does say that it is possible for the same sentence to be used on two occasions, or by two persons, in making the same statement; from which it appears that a statement is something abstractable, something that can occur on many different occasions.⁵⁷ This notion of statement is similar to Cartwright’s or to Alston’s notion of proposition. Austin pays particular attention to how we speak and how we use words; hence he distinguishes statements from propositions—a proposition is understood as it occurs in ordinary language “as something portentous”, not as it is used technically in philosophy.⁵⁸

The essence of the theory is as follows: the statement made by using a certain sentence is correlated by convention (what he calls a demonstrative convention) with a certain state of affairs in the world; if that state of affairs is of a type of state of affairs correlated by convention (what he calls a descriptive convention) with the sentence used to make the statement, then the statement is true. And it can be said that that state of affairs makes that statement true.

Kirkham uses the following diagram to explain how statement, sentence, particular state of affairs, and type of state of affairs are related:⁵⁹



Kirkham points out that a statement is false if the arrow at the bottom fails, and he then raises the question of whether a statement would be

55 Austin, “Truth”, p. 19. For a discussion of Austin, and of Strawson’s criticisms, see Mackie, *Truth, Probability, and Paradox*, pp. 44–58.

56 *Ibid.*, p. 20.

57 *Ibid.*, pp. 20–21.

58 *Ibid.*, pp. 19–20.

59 Kirkham, *Theories of Truth*, p. 125. Austin uses the word ‘correlate’ rather than refer.

false if one of the other arrows were to fail. He suggests, that for Austin, the other arrows can never fail,⁶⁰ though it seems possible to make a statement without there being any state of affairs that is correlated with it, and natural to suggest that if there were no state of affairs correlated with a statement, then the statement would be false. But if Kirkham is right that for Austin, the other arrows cannot fail, I suspect that in the case of the relation between a statement and a particular state of affairs, it is connected with the fact that for Austin, they are related by demonstrative conventions. Austin appears to regard making a statement as in some way demonstrative in nature, so that you have not succeeded in making a statement unless you have succeeded in referring to a particular state of affairs.⁶¹

Although Austin says that sentences are only rarely said to be true in ordinary language, he does allow that they can be truth bearers. Kirkham's diagram can in fact be converted quite easily into one that makes the sentence the truth bearer. All that is required is that the top arrow be reversed: a sentence is used, with the aid of certain conventions, to make a statement, which by means of the demonstrative conventions correlates with a particular state of affairs.

Despite the fact that true sentences rarely, if ever, explicitly say that a certain state of affairs instantiates a certain type of state of affairs, Austin understands a true statement as being made true by a particular state of affairs instantiating a certain type of state of affairs. Consider a simple predicative statement that says that a certain particular has a certain property. While it would be natural to say that it was made true by the particular instantiating the property, Austin is actually saying something new and different when he says that it is made true by the particular state of affairs being of a certain type of state of affairs, in other words, the particular state of affairs instantiating a certain type of state of affairs. If a state of affairs were a real thing, as good a particular as an ordinary particular, then there would be no reason why Austin should not substitute the instantiation of a state of affairs type by a state of affairs for the instantiation of a property by a particular, since where there is one type of instantiation, there would also be the other, higher-order, type of instantiation. In both cases truth making would be understood in predicative terms. Some states of affairs theorists might regard the instantiation of a state of affairs type by a state of affairs as explaining the instantiation of a property by a particular, but

60 Kirkham, *Theories of Truth*, pp. 126–27.

61 Austin, "Truth", p. 22, n. 10.

for the purposes of this discussion it does not matter which explains the other.

But the motivation for this substitution is not clear. It could have something (though what is not clear) to do with the fact that the instantiation of a state of affairs type by a state of affairs is always monadic. It could be generality; for it is conceivable that someone should put forward a theory like this and intend it to apply to all types of statement, believing that any true statement of whatever type corresponds to a states of affairs. Then all statements would be made true in the same way, since they would all be predicative at this higher level. But this does not appear to be Austin's intention, judging from his comment that other types of statements, such as existential, general, and hypothetical statements, "raise questions of meaning rather than of truth".⁶² It is likely that Austin thought that predicative statements were true in some basic sense.

The main difficulty with Austin's theory of truth is knowing what a type of state of affairs is. An ontology based on the realist interpretation of the *Tractatus* would suggest that a type of state of affairs was the sharable structure of a state of affairs, in other words, a logical form, []()(). And it could well be said that a particular state of affairs instantiates this structure, since that is how its components are put together. To see how this might work, consider the state of affairs of *a*'s having *R* to *b*, where *R* is asymmetric. The statement that *a* has *R* to *b* is correlated with this particular state of affairs, and this particular state of affairs instantiates the type of state of affairs, []()(), which is a matter of the components being put together according to the structure []()(). But what about the statement that *b* has *R* to *a*, which is false; is that correlated in the right way with the state of affairs of *a*'s having *R* to *b*? If the answer is "yes", then Austin's theory of truth fails, since the particular state of affairs correlated with the statement does instantiate the right type of state of affairs. If the answer is "no", then it appears that the only state of affairs that will be correlated with the statement by demonstrative conventions is the state of affairs that makes the statement true, and the rest of the theory that invokes types of states of affairs is really unnecessary.

But it seems most unlikely that Austin should have been thinking about anything so theoretical as the logical form, even though it is in some ways the obvious choice. A type of state of affairs must be something describable by ordinary language, because there are descriptive conventions that correlate sentences with types of states of affairs, whereas the

62 Ibid., p. 23, n. 11; cf. Kirkham, *Theories of Truth*, pp. 126.

logical form, in contrast, is shown by syntactical conventions. Now, the descriptive element in a predicative sentence is correlated with the relation, if it is correlated with anything. But the difficulty here is that the relation itself is not a type of state of affairs in the sense that it is instantiated in the ordinary sense by a particular state of affairs. The particular state of affairs of a 's having R to b does not instantiate the state of affairs type $R(\quad)(\quad)$; only ordinary particulars, such as a and b , do that. On the other hand, when Austin says that the historic state of affairs "is of a type with which the sentence used in making it is correlated by the descriptive conventions",⁶³ he may not mean that the state of affairs instantiates that type in the strict sense. He may merely mean that the relation R defines a class of states of affairs, those in which it is instantiated by particulars, and that the particular state of affairs is a member of that class. Now this is, indeed, one of the conditions for a predicative sentence, such as ' Rab ', to be true, but it is not the only one; something has to be said about the order of the particulars under the relation. It appears that a state of affairs ontology, or fact ontology, is of no particular help in solving the direction problem.

The form $R(\quad)_A(\quad)_B$, where the particulars are to have the properties signified by the subscripts, could also be regarded as something that is instantiated by particulars, and it would represent more closely a type of state of affairs than does R itself, but what has been said about $R(\quad)(\quad)$ can also be said about $R(\quad)_A(\quad)_B$. It seems to be peculiarly difficult to explain what a type of state of affairs is in terms of the components of the state of affairs. One gets the impression that Austin has an holistic view of states of affairs, but the basic semantics of both sorts of convention, descriptive and demonstrative, cannot be holistic.⁶⁴

Appendix 3.1: The Role of Mental Sentences in Tractarian Belief

It appears that the Tractarian account of a person having an atomic belief is that there occurs within the person a mental atomic sentence, so that the conditions for the truth of beliefs closely parallels the conditions for the truth of sentences. There is therefore within the system of the *Tractatus* no

63 Austin, "Truth", p. 22.

64 Olson, in *An Essay on Facts*, has an holistic view of facts and he claims to be influenced by Austin.

need to invoke any theory of truth other than the isomorphism version of the correspondence theory, at least for atomic sentences and beliefs.

Wittgenstein uses a number of terms that have closely related meanings, such as ‘sense’, ‘thought’, and ‘logical picture’, as can be seen from the following sections:

3. A logical picture of facts is a thought.

3.11. We use the perceptible sign of a proposition (spoken or written, etc.) as a projection of a possible situation. The method of projection is to think of the sense of the proposition.

3.12. I call the sign with which we express a thought a propositional sign. – And a proposition is a propositional sign in its projective relation to the world.

4. A thought is a proposition with a sense [*der sinnvolle Satz*].

A sense is what is expressed by a sentence, and a sentence expresses its sense by projecting it as a possibility onto the world. A sentence with a sense is a logical picture or a thought. A sentence is a symbol that is actually being used by a person to express a thought; otherwise, it is not a sentence.

Persons and their thoughts are not missing from the picture presented in these sections; indeed, Wittgenstein appears to hold Russell’s sensible view that it is persons and their beliefs that come first. What is missing from these sections is an account of what it is for a person to think the sense of a sentence, and what it is for a person to think a thought when a sentence is not being used to express it.

Since there are two factors to the sense of a sentence, its logical form and the reference relations of its components with objects, it would be reasonable to suggest that the thinking of the sense of a sentence of 3.11 involves thinking of the objects that the components of the sentence refer to and thinking of the logical form of the sentence, and then thinking that the objects are connected by the logical form. But this would be equivalent to a version of Russell’s multiple relation theory of belief and definitely not what Wittgenstein had in mind later in the *Tractatus*.

The official view of the *Tractatus* is that a person’s having a belief or a thought is to be understood in a quite different way. The relevant section is 5.542:

It is clear, however, that ‘*A* believes *p*’, ‘*A* has the thought *p*’, ‘*A* says *p*’ are of the same form as “‘*p*’ says *p*’: and this does not involve a correlation of a fact with an object, but rather the correlation of facts by means of a correlation of their objects.

The correct interpretation appears to be that if *A* believes *p*, then there is within the person *A* a mental fact with mental components, such that each mental component is correlated with an object in the world. One consequence of Wittgenstein's view is that '*A* believes *p*' has the same logical form as "'*p*' says *p*', and is therefore extensional. The mental fact becomes, in effect, a sort of mental sentence. The conditions for a mental fact to have sense should be the same, *mutatis mutandis*, as the conditions for an atomic sentence to have sense; and the conditions for a mental fact to be true should be the same, *mutatis mutandis*, as the conditions for the truth of an atomic sentence. Thinking the sense of a sentence is apparently nothing other than the occurring within the person of a mental sentence, so that a person projects a possible situation in exactly the same way that a sentence itself projects a possible situation.

The idea of explaining belief in terms of mental or even neural sentences has been put forward on a number of different occasions. Geach, for example, explains true predicative judgement in terms of the presence within a person's mind of ideas of particulars that are related in a way that is parallel to the way the particulars themselves are related in the world.⁶⁵ Ryckman suggests that true belief should be explained in terms of a brain-state fact whose components are correlated to a fact in the world by referential facts.⁶⁶ "And Jerry Fodor and others have explained belief in terms of "mentalese", which is a language-like medium of representation, the expressions of which are located in the relevant place in one's mind or brain.⁶⁷

One of the major difficulties concerning mental sentences is the simple question of whether there are such things. One difficult consequence of this account of believing is that the notion of a person, subject, or mind that is conscious of objects in the world is not needed to explain belief, which is a very strange idea and in stark contrast to Russell's theory of belief, according to which it is a necessary condition for belief that the subject be aware of the objects that the belief is about. That a sentence in mentalese should occur in a mind does not imply that that mind is aware of the things that the sentence in mentalese is about, no more than

65 Geach, *Mental Acts*, chap. 14. He introduces a function that maps the relation in the world into a mental relation that relates ideas.

66 Ryckman, "Revised Factualism". Russell in *Analysis of Mind*, pp. 273–74, thought that the true belief that *Rab* could involve an image proposition consisting of an image of *a* and an image of *b* related by the relation *R*; this belief is made true by an objective (fact) with components *a*, *b*, and *R*.

67 Fodor, *The Language of Thought* and *The Elm and the Expert*, pp. 103–13.

the occurrence of a sentence in English on a piece of paper implies that the piece of paper is conscious, and no more than the occurrence of a sentence in “computerese” in a computer would imply that the computer is conscious of the things that the sentence is about. If all there is to the explanation of belief is the occurrence of a sentence in mentalese, then a mind conscious of objects in the world is not needed to explain belief. It is, of course, quite possible to believe that sentences in mentalese occur in a mind and that in addition there is genuine inner life consciousness, and that the latter is also required to explain belief, but Wittgenstein’s theory does not require it.

In fact, Wittgenstein immediately infers from the logical form of a belief that there is no thinking subject or psychological self (5.5421), though, surprisingly, there is in the *Tractatus* a notion of a metaphysical self, which is to be understood not as an object in the world, but as the limit of the world (5.632).⁶⁸ Instead of drawing the conclusion that there is no thinking subject, others might be inclined to regard this inference as the basis for an argument by *reductio ad absurdum*.

The Tractarian theory of belief is intended to be an improvement on Russell’s theory of belief: it makes beliefs themselves extensional, and, unlike Russell’s theory of belief, it makes it “impossible for a judgement to be a piece of nonsense” (5.5422).⁶⁹ Wittgenstein’s main criticism of Russell’s theory of belief had been that it did not exclude nonsensical beliefs. The rules that ensure that sentences describe what is possible are presumably an example of a more general logical grammar that also governs mental sentences. And inasmuch as it is possible for logical grammar to exclude nonsensical beliefs, the Tractarian theory of belief does indeed exclude nonsensical beliefs.

Appendix 3.2: The Tractatus’s Attitude to Truth

The *Tractatus* is interested in all the atomic facts that could possibly be constructed from all the Tractarian objects that there are and the atomic sentences that could describe them. The *Tractatus* is therefore interested

68 Cf. Hacker, *Insight and Illusion*, pp. 86–89. Hacker describes the influence of Schopenhauer on Wittgenstein at this point and quotes Wittgenstein’s *Notebooks*: “There is really only one world soul, which I for preference call my soul and as which alone I conceive what I call the soul of others.” See *Insight and Illusion*, p. 91.

69 Cf. Black, *Companion*, p. 96.

in the truth and falsity of all possible atomic sentences, and therefore its account of the truth of atomic sentences comes under the essence project; ultimately, the aim would be to give an account of the truth of all possible meaningful sentences. Using Kirkham's classification, a theory of truth of this type can be categorized by its purpose as belonging to the essence subdivision of the metaphysical project.

On the other hand, some interpreters of Wittgenstein say that Wittgenstein did not intend to put forward a theory of truth. P. M. S. Hacker, for example, claims that Wittgenstein generally thought that sentences were not truth bearers, that 'true' was a not metalinguistic predicate, and that the idea of a theory of truth was absurd. And Hacker also maintains that his conception of what is meant by 'true' did not change from his earlier to his later work.⁷⁰

According to the *Tractatus*, a person uses a sentence to express a thought (3.12), a sentence itself shows its sense, and if the sentence is true it thereby shows how things do in fact stand (4.022). A true sentence is itself a logical picture of reality, and is true in virtue of being a picture of reality (4.06). From which it appears that sentences are indeed truth bearers in the *Tractatus*. Those who are happy with metalinguistic statements can consider the isomorphism theory of truth given in the *Tractatus* as a theory of truth that at least makes sense. Even if the final official position of the *Tractatus* is against metalinguistic statements, it is merely the final position; there are many metalinguistic pronouncements along the way before that position is reached at the very end, when they are kicked away.⁷¹ The final position of the *Tractatus* is of great interest, but by no means easy to understand; the metalinguistic rungs that precede it, though different in character, are in many respects easier to understand than the final position and of interest in their own right and, indeed, have a life of their own.

70 Hacker, *Insight and Illusion*, pp. 324–30.

71 *Tractatus*, 4.126–4.1273. If the notion of proposition is a formal concept, then truth should also be a formal concept. Cf. Wittgenstein, *Philosophical Investigations*, secs. 134–37.

4

Russell's Theory of Truth and Its Principal Problems

4.1 THE VIRTUES OF RUSSELL'S THEORY OF TRUTH

When a person has a predicative belief, that the knife is to the left of the book, for example, what is the person thinking about? What is the attention directed towards? Is it not fairly obvious that the person is thinking about the particulars the belief is about, the knife and the book, and in a different way, perhaps, thinking about the relation that is supposed to relate them?

Although when someone is thinking of a particular, the person is not immediately acquainted with it, according to Russell's original notion of "acquaintance", the particular is, indeed, the object of thought, despite the fact that there are normally physical, but not cognitive, intermediaries situated between the person and the particular. This view of thinking of a particular is analogous to direct realism about perception, the alternative being indirect realism (representative perception), according to which what is perceived directly is a sense datum or some sort of image, though the nature, location, and existence, of sense data are matters of controversy.¹ Between a person and an object of perception, there are a number of different sorts of intermediaries, such as an image on the retina and an encoded message travelling along the optic nerve, but these are only things in virtue of which perception takes place, not things that are perceived. An intermediary of this sort is an *objectum quo* as opposed to an *objectum quod*. The perception is direct in an epistemic sense, not, of course, in a

1 This comparison is made by Frege in "Sense and Reference" and taken up by Salmon in *Frege's Puzzle*. According to indirect realism, the moon itself is something inferred to exist, and is, therefore, an object of thought rather than an object of perception.

causal sense.² Similarly, when a person thinks of a particular, such as “the knife”, it is possible, indeed, very likely, that besides the person and the knife various other things must be present also, such as a mental representation, a neural process, a sense of a proper name, and perhaps a Platonic idea – something that could be a component of a Platonic proposition. The best that can be said for the role of these other things is that if they are present, then they are things in virtue of which a person thinks of a particular. The sense of a proper name, which Frege claimed always played an important role in a person’s thinking about a particular, was not put forward as an intermediary in the sense of being an intermediate object of thought. It is not a something towards which thought is directed; it is merely how an object is thought of, and according to Frege whenever a person thinks of a particular, that person must think of the particular in some specific way.³

There are well-known difficulties about how referential relations between persons and particulars are set up, and about whether the persons involved need know which particular they are thinking of. But however these issues are resolved, the particular can be said to be the direct object of the person’s thought in the sense that the person does not think of the particular by means of thinking of any intermediate particular.

Since predicative belief involves a person thinking of certain particulars and relations, it is at least reasonable to suggest that our philosophical account of predicative belief should be given in terms of a person thinking of particulars and relations. It is analysing predicative belief in terms of other things, such as mental representations, neural processes, or Platonic ideas, that stands in need of motivation and justification. Russell’s multiple relation theory of truth does not involve these other things; it understands predicative belief solely in terms of the person and the things the person’s attention has to be directed towards. For these reasons alone, Russell’s theory is worth taking seriously.

For the sake of historical accuracy, it should be mentioned that Russell presented his theory of judgement and truth in association with his principle of acquaintance, which he calls an epistemological principle, namely, that in judgement the person must be acquainted with the things

2 Sense data are often supposed to be mental entities, but Russell himself did not regard them so, and sometimes spoke as though the sense datum was at the object, or perhaps clothed the object. See “The Relation of Sense Data to Physics”.

3 See Evans, *Varieties of Reference*, p. 17 and n. 17. For critical accounts of Frege’s notion of sense, see also Bell, *Frege’s Theory of Judgement*, and, particularly, Burge, “Sinning against Frege”, who discusses Frege in relation to Kripke.

that the judgement is about.⁴ The notion of acquaintance is such that the objects of acquaintance are limited to things like sense data. However, there is no essential relation between the principle of acquaintance and Russell's theory of judgement and theory of truth; even Russell ignores the principle of acquaintance most of the time and typically gives examples of judgements about people such as Charles I, Desdemona, and Cassio, which are definitely not objects of Russellian acquaintance. All that is required for Russell's theory of judgement and truth in their basic forms is that the things that the judgement is about be things that it is possible to think about.

4.2 THE VARIANTS OF RUSSELL'S THEORY OF TRUTH

In his 1910 essay "On the Nature of Truth and Falsehood", Russell put forward a theory of truth that he called a correspondence theory of truth.⁵ Much the same theory appeared a year later in "On Knowledge by Acquaintance and Knowledge by Description" as an account of judging or believing, and for that reason it is frequently called Russell's theory of judgement, although he does explain in that essay that it had its origins in considerations concerning truth.⁶ Other versions of the theory appeared in 1912 in *The Problems of Philosophy* and in 1913 in the manuscript *Theory of Knowledge*. It is a theory of what it is for a person to believe truly a simple predicative or atomic proposition.

For Russell, a belief appears to be an act of a person rather than the content of what a person believes.⁷ He says that he uses the terms 'belief' and 'judgement' as synonyms, but both terms are ambiguous in that each can mean either an *act* of a person or the *content* of that act. 'Judgement' might be the better term for Russell, since it is more generally used for the act of a person and means occurrent belief, whether thought of as act or content, but 'belief' sounds more natural today.⁸

There are a number of ontological advantages to Russell's theory. Russell had the ontological or semantical intuition that the "phrase 'that

4 Russell, "Knowledge by Acquaintance and Knowledge by Description", pp. 219–21.

5 Russell, "On the Nature of Truth and Falsehood".

6 Russell, "Knowledge by Acquaintance and Knowledge by Description".

7 In 1959, Russell said, "It is primarily beliefs and only derivatively sentences that have the property of being true or false, as the case may be." *My Philosophical Development*, p. 188. The quote is from chap. 15, which discusses his major accounts of the nature of truth. Cf. Russell, "On the Nature of Truth and Falsehood", pp. 148–49.

8 Russell, "On the Nature of Truth and Falsehood", p. 148.

so and so' has no complete meaning in itself, which would enable it to denote a definite object", so that it does not stand for an independent entity, independent, that is, from a person performing an act of believing.⁹ There is no place in his thinking for the content of a belief as a proposition in the sense of a Platonic object; indeed, part of his aim is to avoid such entities. His theory is based on a contextual account of the content of an act of believing; although Russell did not develop a notion of the content of an act of belief, it is possible to develop a notion of content based on a criterion for when two people believe the same thing. And truth and falsehood are mind dependent in the sense that there would be no truth or falsehood without a mind to perform acts of believing, while they are mind independent in the sense that whether an act of believing is true or false depends only on facts found in the world – "Hence we account simultaneously for the two facts that beliefs (a) depend on minds for their existence, (b) do not depend on minds for their truth."¹⁰

Russell also thought that it is plausible to suppose that a belief has an objective ground, in the sense that it should involve a relation between the believer and something objective. Russell rejected Platonic propositions, and there are difficulties with facts, and presumably with events. Guided by the idea that the act of believing should be the same sort of thing whatever the truth value of the belief, he rejected his earlier position that believing was a matter of a person being in a relation to a certain fact and adopted instead the view that a person is in a relation to certain objects that could be components of a fact. If an act of believing were a relation between a person and a single entity, such as a fact, there would have to be false facts existing independently of human minds to explain false belief.¹¹ But it is the human mind that makes mistakes; there can be no falsehood without minds to make mistakes.¹²

For there to be an act of believing there must be a number of two-place relations between the person doing the believing and certain objects in the world that the belief is about, such as Charles I, the scaffold, and dying: the person who is doing the believing is "conscious of" Charles I, is "conscious of" the scaffold, and is "conscious of" dying.¹³ Russell could

9 Ibid., p. 151.

10 Russell, *The Problems of Philosophy*, p. 129; cf. "On the Nature of Truth and Falsehood", p. 158.

11 Russell, "On the Nature of Truth and Falsehood", pp. 150–53.

12 Ibid., p. 152.

13 Ibid., p. 153.

have started with these two-place relations and then have asked what binds them together to form a unit, as Ramsey once did, for he fully realized that there must be something that makes the act of believing or judging a unit.¹⁴ Instead, he posited a single “multiple relation”, that is, a multi-place relation, which is supposed to bring with it the required unity, and for which the two-place relations are merely necessary conditions.

Now there is no reason why Russell’s multiple relation should be symmetric, formless, or, indeed, mysterious, but it does appear that it is *sui generis*. The spatial three-place betweenness relation, for example, which is of fundamental importance to geometry, singles out one object as the object that the statement is about and two further objects that the first is related to, that the first is between. One of the differences between the geometrical betweenness relation and Russell’s multiple relation is that a betweenness relation is entailed by three two-place spatial relations, whereas a multiple relation is not entailed by the associated two-place relations.

Russell gives jealousy as an example of a multiple relation that is analogous to believing, as in “Othello is jealous of Desdemona’s love for Cassio”.¹⁵ The difficulty with this example as an illustration to make plausible the multiple relation is that being jealous of is very much like a propositional attitude: being *jealous of* is too much like being *jealous that*. It is difficult to find parallels to the multiple relation that are not themselves propositional attitudes.

As a first approximation to the definition of truth and falsity, Russell suggested the following:

We may therefore state the difference between truth and falsehood as follows: Every judgment is a relation of the mind to several objects, one of which is a relation; the judgment is true when the relation which is one of the objects relates the other objects, otherwise it is false.¹⁶

The principal difficulty with this formulation is that it does not take into account asymmetric relations: if it were true that Desdemona loves Cassio, it might not be true that Cassio loves Desdemona, so that someone would

14 “In order to obtain this belief, we must have one single unity of the mind and Charles I and dying and the scaffold, i.e. we must have, not several instances of a relation between two terms, but one instance of a relation between more than two terms.” *Ibid.*, p. 154.

15 *Ibid.*, pp. 154–55.

16 *Ibid.*, pp. 155–56.

believe truly that Desdemona loves Cassio and believe falsely that Cassio loves Desdemona.¹⁷ This is known as the direction problem.

To deal with this problem Russell added to this first approximation the further condition that the person must be thinking of the relation “loves” as having a sense,

thus the relation must not be abstractly before the mind, but must be before it as proceeding from A to B rather than from B to A. . . . Then the relation as it enters into the judgment must have a ‘sense’, and in the corresponding complex it must have the same sense.¹⁸

This modification of the multiple relation theory does not concern the two-place relation of the subject thinking of the subordinate relation “loves”; it concerns how the subordinate relation “loves” is thought of in the act of believing; in other words, how it figures in the multiple relation, which is a multi-place relation involving thought.

In discussions of Russell’s theory it is customary to make a distinction between the relation “loves” as it is in itself, what is called an ‘abstract relation’, and the relation “loves” as something that actually relates two particulars, what is called a ‘relating relation’, a distinction that will be called into question later. Now, given this distinction, it appears that in the modification to the 1910 theory the subordinate relation, as a term of the believing relation, is a relating relation.¹⁹ The difficulty with this is that in false belief the relation does not actually relate two particulars, and, consequently, there is no relating relation to be thought of.

Later in *The Problems of Philosophy* of 1912, Russell put forward the same basic theory of belief, the same first approximation, but adopted a different approach to the direction problem. There the difference between Othello’s believing that Cassio loves Desdemona and Othello’s believing that Desdemona loves Cassio is explained by the particulars that are terms of the believing relation (the multiple relation) having a different order as terms of that relation: “This property of having a ‘sense’ or ‘direction’ is

17 In fictional reality, they were indifferent to each other.

18 Ibid., p. 158; cf. Russell, *The Problems of Philosophy*, pp. 197–201: “This property of having a “sense” or “direction” is one which the relation of judging shares with all other relations. The “sense” of relations is the ultimate source of order and series and a host of mathematical concepts . . .” (pp. 198–99).

19 Candlish, “The Unity of the Proposition and Russell’s Theory of Belief”, p. 109. Griffin admits that Russell’s suggestion that the subordinate relation has direction makes sense only if it is either a particularized relation or a relating relation. Griffin, “Russell’s Multiple Relation Theory of Belief”, p. 220.

one which the relation of judging shares with all other relations.”²⁰ The believing or judging relation is itself not symmetric, and the ordering of the terms Desdemona and Cassio in the believing relation is supposed to be equivalent to the mind believing that Desdemona and Cassio are related by the subordinate relation “loves” in a certain order. The order of terms within the believing relation is a product of how the mind thinks of them. In this modification of the basic theory, the subordinate relation “loves” as a term of the believing relation appears to be the abstract relation.

G. F. Stout replied that if the mind in the act of judging arranged the objects in the correct order then the mind must be aware of the believing relation, but it appears that the mind is not aware of the believing relation. Nicholas Griffin suggests that Russell could have replied that “one can be aware of the difference in order of two arrangements of the same constituents without being aware of the relation that orders them for he admits that one can be acquainted with a complex without being acquainted with its relating relation.”²¹

In the manuscript *Theory of Knowledge* of 1913, Russell suggested two different modifications to his theory, neither of which is particularly easy to follow. For non-permutative beliefs, that is, beliefs where the order does not matter, the analysis of the belief complex sentence S 's believing that aRb is $J(S, F, a, R, b)$, where F is the logical form, represented by the open sentence, ‘ xXy ’, of the fact that would obtain if the sentence were true.²² Besides being acquainted with or thinking of the particulars and the relation, the subject has to be acquainted with the logical form, though acquaintance with a logical form is apparently not quite the same sort of thing as acquaintance with a particular or relation.²³ Perhaps the subject thinks of the particulars and the

20 Russell, *The Problems of Philosophy*, p. 73. See also a letter of Russell's, now lost, but quoted by Stout in *Proceedings of the Aristotelian Society* of 1911, pp. 187–208; reprinted in Stout, *Studies in Philosophy and Psychology*, p. 350; and quoted in Griffin, “Russell's Multiple Relation Theory of Belief”, p. 220.

21 Griffin, “Russell's Multiple Relation Theory of Belief”, p. 220.

22 Russell, *Theory of Knowledge*, p. 144. Earlier, Russell had given a regress argument against logical forms: A form is merely a way in which items are strung together to form facts, but if forms have constituents, then they must be strung together in some way, which requires a form, and so on. He concluded that “the form must be something exceedingly simple”. *Ibid.*, p. 114. Cf. Griffin, “Russell's Multiple Relation Theory of Belief”, p. 223.

23 Russell, *Theory of Knowledge*, pp. 97–99. “It should be said, to begin with, that “acquaintance” has, perhaps, a somewhat different meaning, where logical objects are concerned, from that which it has when particulars are concerned. . . . It would seem that logical objects cannot be regarded as entities, and that, therefore, what we shall call “acquaintance” with them cannot really be a dual relation.” “For the present, I am content to point out that there

relation as substituted into the logical form, or perhaps as instantancing the logical form.²⁴ Griffin thinks that the non-permutative theory could also solve the direction problem, perhaps by using an order convention of the type suggested by John Wisdom;²⁵ in other words, he thinks that the non-permutative theory could be adapted to deal with permutative beliefs.

For permutative beliefs, where the order does matter, Russell adopted a different approach. The result of this approach was that the subject has a complex conjunctive belief that concerns not only the particulars forming a complex but also the *positions* of particulars in the complex, which is the device he uses to try to solve the direction problem. The *position* relation C_1 is a relation between a particular and a fact (complex), such that a particular has the relation C_1 with a fact when it occupies the first slot in the fact open to a particular. The subject believes that there is one and only one fact g , such that a has position C_1 with respect to the fact g , and b has position C_2 with respect to the fact g , or in symbols $E!(\exists g)(aC_1g \ \& \ bC_2g)$.²⁶ Although it does indeed make sense to regard a particular as occupying a designated slot in a fact, it would also be possible for a particular to be regarded as occupying a designated slot in a relation or even in a designated slot in a logical form, which suggests that other modifications are also possible. This particular modification appears to be in need of a distinction between what is thought in a primary sense and what is presupposed or thought in a secondary sense.

certainly is such a thing as “logical experience”, by which I mean that kind of immediate knowledge, other than judgement, which is what enables us to understand logical terms.” (p. 97). “It is not at all clear what is the right logical account of “form”, but whatever this account may be, it is clear that we have acquaintance (possibly in an extended sense of the word “acquaintance”) with something as abstract as the pure form, since otherwise we could not use intelligently such a word as “relation”.” (pp. 98–99). What is used intelligently is the word for the general notion of relation, but by understanding this word one should be able to use intelligently the words for individual relations. In other words, we understand what relations are and we understand how to form meaningful sentences using relation words. We have some understanding of their internal properties and the syntactic rules that govern the use of relation words. Here the form is associated with the relation: that the relation is a dyadic relation determines the form of the complex. It seems to me that if the general logical form is merely an internal property of the universal, then being acquainted with a universal will include an understanding of the logical form.

24 Cf. Russell, *Theory of Knowledge*, pp. 117–18; Griffin, “Russell’s Multiple Relation Theory of Belief”, pp. 222–23; and Hylton, *Russell, Idealism, and the Emergence of Analytic Philosophy*, p. 346.

25 Wisdom, *Problems of Mind and Matter*, p. 203.

26 Russell, *Theory of Knowledge*, p. 148.

4.3 THE MAJOR PROBLEMS OF RUSSELL'S THEORY

Among the many criticisms directed at Russell's theory, the most serious are (1) the direction problem, (2) the twofold role of the relation problem (a double aspect problem), and (3) the problem of the unity of predicative belief, or the unity of the proposition. The direction problem, as a criticism of Russell's theory, is the claim that it does not have the resources to explain the difference between Othello believing that Cassio loves Desdemona and Othello believing that Desdemona loves Cassio. The problem of the twofold role of the relation is best put as a dilemma: The relation "loves" that is a term of the multiple relation is either a relating relation or an abstract relation. It cannot be a relating relation, since if it were it would actually relate the two particulars, and false belief would be impossible. It cannot be an abstract relation, since the components of the "proposition" would then have the form of unity appropriate to a set, and that does not bind them together tightly enough. And the problem of the unity of the proposition, as a criticism of Russell's theory, is the claim that there is no form of unity that binds the components together tightly enough to form a "proposition" without creating the fact. These problems have been particularly thoroughly developed as objections to Russell's theory by Stewart Candlish in a recent article.²⁷

Nevertheless, despite these and other criticisms, Russell's theory has found a few defenders. In 1927, Ramsey endorsed the general idea of Russell's theory, though he regarded it as unsatisfactory in some respects. In 1934, Wisdom presented a version of it as "the correspondence theory of truth", and in 1967, in a discussion of Ramsey's views, Prior presented a version of it that he endorsed.²⁸ In 1985, Griffin, in the course of a lengthy analysis, showed that at a number of points it can be defended against its critics, and, more recently, Mark Sainsbury has proposed a version of the theory influenced by Davidson.²⁹

In the next chapter I propose a version of the theory, which I think can be defended. To avoid the problems associated with the twofold role of the relation, I suggest that it is a mistake to make a distinction between a relating relation and an abstract relation. To solve the direction problem,

27 Candlish, "The Unity of the Proposition and Russell's Theory of Belief".

28 Ramsey, "Facts and Propositions", p. 44; John Wisdom, *Problems of Mind and Matter*, pp. 202–5; Prior, "The Correspondence Theory of Truth". Ramsey thought that the multiple relation was not simple, and may result from the combination of the dyadic relations between the subject and the components of the belief.

29 Griffin, "Russell's Multiple Relation Theory of Belief"; Sainsbury, "How can some thing say something?"

I suggest that in an act of believing, the relation plays a different role from the role played by the particulars, a difference in role that can be given a formal representation. This formal device allows something like Russell's 1912 attempt at solving the direction problem to be adopted. To defuse problems associated with the unity of a proposition, I make a distinction between thinking of a fact, thinking of a set of things, and thinking that p , where p is a proposition, and argue that a weak form of unity is unity enough for a proposition. Because of the importance of the issues associated with the twofold role of the relation and the problem of the unity of a proposition, the last two sections of this chapter are devoted to preliminary and exploratory studies of these two issues, with the defence of Russell's theory deferred to the next chapter. Some readers might be prepared to go straight to the next chapter, coming back to these two sections when and if they need to.

4.4 THE PROBLEM OF TWOFOLD ROLE OF THE RELATION

In discussions of Russell's theory it is usual to make a distinction between an abstract relation and a relating relation.³⁰ This distinction was first made by Russell in connection with a discussion of belief in *The Principles of Mathematics* a few years before he developed the multiple relation theory:

The twofold nature of the verb, as actual verb and as verbal noun, may be expressed, if all verbs are held to be relations, as the difference between a relation in itself and a relation actually relating.³¹

The relation in itself is something abstract,³² and when a relation is enumerated as a member of a set, the relation is the abstract relation;³³ but when there is a fact of a 's having R to b , the relation that is a component of the fact is a relating relation, doing its job of relating particulars. Although the primary role of a relation is to be predicated of particulars, a relation is also capable of another role, namely, being a subject of predication itself. Russell says that the distinction arises, because when a

30 For example, Candlish, "The Unity of the Proposition and Russell's Theory of Belief", and Sainsbury, "How can some thing say something?"

31 Russell, *Principles*, pp. 45 and 49. Russell had earlier made a distinction between "a concept as such and a concept used as a term". In chap. 4 he divides concepts into adjectives and verbs. For a discussion of double aspect problems in Russell, see Griffin, "Terms, Relations, Complexes", pp. 162–64. For Russell's later use of the distinction, *Theory of Knowledge*, pp. 80–84 and 115. In *Theory of Knowledge*, he tends to speak of a "relating relation".

32 Russell, *Principles*, p. 51.

33 *Ibid.*, p. 140.

concept, such as a relation, is predicated of particulars, it “embodies the unity of the proposition”, and presumably when it has the role of subject of predication, it does not.³⁴ Earlier, Russell had said that the difference “lies solely in external relations, and not in the intrinsic nature of the terms”,³⁵ though towards the end of the discussion he appeared to think that the distinction between the predicative role and the role as a subject of predication goes beyond a mere distinction in role, or a mere grammatical distinction, though it is not a distinction that he can explain.

Some people have thought that there is a special connection between grammar and ontology, that proper names (or singular terms generally), for example, were symbols that referred only to particulars, or that quantification was only over particulars – usually in this context just called objects. Dummett, for example, in his interpretation of Frege, went so far as to claim that the only characterization possible of the notion of object was via a characterization of the grammatical notion of proper name. A related view found in Quine is that by means of the formalism of quantification we express which things we take to be objects.³⁶ Dummett’s view leads to the doctrine that ontology can be inferred from language. If something that is grammatically a proper name refers to something that is ontologically a relation, then either the sentence has to be given an analysis in which only predicates refer to relations, its true logical form, or what is referred to must be understood on these occasions to be in reality an object.

Lying behind the ontological issue of whether there are in reality two different sorts of relation there is the issue about the relation of grammar to ontology. Those who hold that grammar is a guide to ontology will almost inevitably believe that there are two different sorts of relation. But if the doctrines about the relation between grammar and ontology are denied, the view that there is only one relation with two different roles becomes a possible and indeed plausible position, though the view that there are two different sorts of relation is not thereby rendered completely untenable. If there is only one type of relation ontologically speaking, albeit capable of two different roles, a relation would be referred to by a predicate when it was being predicated of an object and would be referred to by a singular term when it was a subject of predication, for example,

34 Ibid., p. 50. But for Russell in the *Principles* a proposition was a complex, i.e., a fact.

35 Ibid., p. 46.

36 Dummett, “Frege”, p. 229. Quine, *Word and Object*, p. 242. For a discussion of the syntactic priority thesis and the concept horse problem, see Newman, *The Physical Basis of Predication*, chap. 2.

when a second-order property was predicated of it. The difference in form between 'human' and 'humanity', and the failure of substitutivity for pairs of words such as these, would be explained by the grammatical conventions that associate the two different linguistic forms with the two different roles. To recommend this view I discuss Wiggins's version of the theory that there are two types of relation, and then I present another way of looking at the two relation theory.

Wiggins, starting from an essentially Fregean framework, suggested, without using the terminology, a way in which there could be a systematic correlation between an abstract relation and a relating relation as ontologically distinct things.³⁷ The way he put it was that concept names such as 'humanity' referred to concepts, which are not objects and are neither saturated nor unsaturated, but are nevertheless suitable for being subjects of predication. But when the copula combines with a word that refers to a concept, the result is a predicate, a term that refers to something unsaturated, something naturally suited for playing the predicative role. The copula by itself does not signify anything, but does have a sense in that it contributes to the truth conditions of sentences in which it occurs. The ontological distinction is between what is referred to by '*P*', an abstract property, and what is referred to by 'is *P*', a property actually possessed by an object.

Consider a case of subordination between concepts, such as Frege's example "the whale is a mammal". If there were two types of concept, then that subordination would be a relation between abstract concepts, not the concepts that actually apply to objects. But "the whale is a mammal" implies "(*x*)(if *x* is whale, then *x* is a mammal)", which concerns concepts that actually apply to objects. So how is the inference to be made? It could be stipulated that "the whale is a mammal" simply implies "(*x*)(if *x* is whale, then *x* is a mammal)", but that is pulling a rabbit out of a hat. The inference should be indirect, via the systematic correlation between concepts that actually apply to objects and abstract concepts. But what could the intermediate step be except one from the subordination of abstract concepts to a relation between concepts that actually apply to

37 Wiggins, "The Sense and Reference of Predicates: A Running Repair to Frege's Doctrine and a Plea for the Copula". For Frege, concepts were essentially predicative in nature, and their nature as functions explained the unity of a thought. There was a systematic correlation between the extension of a predicate, which was saturated, and a concept, which was unsaturated. They were individuated together in the sense that predicates that referred to the same concept had the same extension, and vice versa. The senses of predicates were individuated differently.

objects, which would have to be something very much like subordination? If “the whale is a mammal” is about abstract concepts that on account of their natures as abstract concepts can have nothing to do with objects, how can it imply that “(x)(if x is whale, then x is a mammal)”, which is about objects, unless the implication is via a relation between concepts that actually apply to objects? But if there are subordination relations between both sorts of concepts, why would subordination relations between abstract concepts be of any interest to anyone?

Another difficulty with this position is that if, after having asserted that some physical object is round, I now want to say something about roundness. I do not want to refer to something ontologically different from what I have asserted of the object: I want to speak of the roundness that I have asserted of the object. This difficulty goes beyond linguistic puzzles about the correct form to put a proposition in. The locution ‘the property that I have asserted of the object’, or, more specifically, ‘the roundness that I have asserted of the object’, presupposes that there is no ontological difference between what is referred to by the predicate ‘is round’ and the property name ‘roundness’. If there were an ontological difference between what is referred to by ‘is P ’ and what is referred to by ‘ P ’, why would anyone have any interest in saying anything about what is referred to by ‘ P ’, since it has no connection with anything in the spatio-temporal world and is never the property of any objects whatsoever?

And if there is an ontological difference between what is referred to by ‘is P ’ and what is referred to by ‘ P ’, why not say so? Indeed, the heart of Wiggins’s position is the assertion that “what is referred to by ‘is P ’ differs from what is referred to by ‘ P ’”, in which, of course, what is referred to by ‘is P ’ is a subject of predication. In such discussions the expression ‘is P ’ is supposed to refer to a concept actually applying to an object, but in such discussions it cannot. Russell in fact made a similar point in *The Principles of Mathematics*.³⁸

Wiggins’s double Platonism, given that I understand him correctly, could be motivated only by linguistic considerations; what else could motivate locating a relation actually relating in the third realm alongside the abstract relation?³⁹ One alternative to double Platonism would be to keep the abstract relation in the Platonic realm and for relating relations to inhabit the spatio-temporal realm alongside the objects they relate, which

38 Russell, *Principles*, p. 46.

39 I am assuming that Frege’s concepts inhabit his third realm, his version of the Platonic heaven, and that Wiggins’s concepts also inhabit the third realm.

seems only right. This would be equivalent to two theories of universals, something like Platonism for the abstract relation, which would then be a form, and something like particularism for the relating relation, which would then be a trope.⁴⁰ This is another theory of the distinction between an abstract relation and a relating relation.⁴¹

On this combined view it is not clear what it would be to think of a fact. In a relational fact the concrete particulars would be related by a trope, and consequently in thinking of the fact the subject would be thinking of that trope – an ontological interpretation of the relating relation. But if forms play any role in the theory at all, the subject must also be thinking of the appropriate form – an ontological interpretation of the abstract relation. If the subject, in thinking of a fact, is thinking of both a trope and a form, it is not clear how.⁴²

Even if pure particularism, unalloyed with Platonism, could give a plausible account of facts, it is not clear how it could give an account of believing falsely. If true belief involves thinking of the trope that actually relates, then false belief clearly cannot involve thinking of the trope that actually relates – particulars that do not exist are notoriously difficult to think of (Meinong or no Meinong). But there is something wrong with the idea that belief, true or false, should be a matter of thinking of a trope; it should involve thinking of something that many particulars could fall under. Perhaps the best way to marry Platonism and particularism would be to explain facts in terms of tropes, and explain belief in terms of forms, but, strictly speaking, they are ill-wedded companions.

While pure Platonism, unaccompanied by any other theory of universals, would have to regard facts as abstract rather than spatio-temporal things, it does make sense of Russell's theory of belief. One of the virtues of the form of love is that it remains the same whether persons *A* and *B* decide to participate in it or not; it remains the same thing no matter who decides to participate in it, and indeed if nobody decides to participate in it. The relation "love" as Platonic form is suitable both for playing the

40 Russell appears to be arguing against something like particularism in *Principles*, p. 51.

41 Cf. McPherran, "Plato's Particulars". Particularism usually explains common features in terms of the similarity of tropes, while Platonism explains common features in terms of participation in a form. Presumably, the combined view would explain common features in terms of possession of tropes that have it in common that they participate in the same form.

42 On the trope view of relations, a fact is the particulars *a*, *b*, and *R* being strung together. Trope theorists could claim in the manner of the *Tractatus* that the components just fit into each other without the need for intermediaries. Nevertheless, all the components of a fact are particulars, which appear to be particulars that are related in some way.

predicative role and for playing the role of subject of predication; only the form of words changes, not the form itself. Since the form of love is the same thing whether a belief involving it is true or false, someone's believing that *A* loves *B* does not require that the components be united in such a way that *A* actually loves *B*, at least not on account of the way that the relation "loves" is thought of. It may be difficult to say exactly how they are united, but that is another issue.

This advantage of the Platonic version of realism about universals is also found in the immanent version of realism, which characterizes a universal as one thing that can occur many times. Immanent realism is similar to Platonism in that it regards a universal as a single thing and allows no ontological distinction between an abstract relation and a relation actually relating, and it is similar to particularism in that it locates a universal at the particulars that instantiate it. In this way it embodies some of the virtues of both theories, or, putting it another way, they in their different ways reflect something of the truth of immanent realism. Not only is immanent realism a better theory of universals than the curious combination of particularism and Platonism implicit in the distinction between an abstract relation and a relating relation, it will be seen that it is better suited to Russell's theory of belief.

Russell himself was partially responsible for resurrecting immanent realism, though it is interesting that in *The Principles of Mathematics*, where it is generally thought that he held a Platonist view of relations, Russell considers the issue of whether the relation that occurs in a proposition is a general relation or an instantiated relation and concludes that "the relation affirmed between *A* and *B* in the proposition "*A* differs from *B*" is the general relation of difference, and is precisely and numerically the same as the relation affirmed between *C* and *D* in "*C* differs from *D*"."⁴³

4.5 THE MODES OF COMPOSITION OF ENTITIES

In this section I discuss a number of different ways in which things can be combined together to form a unit. The aim is to show that the different modes of composition or forms of unity differ from each other in fundamental ways, and that the ways that subjects apprehend the different

43 Russell, *Principles*, pp. 51–52. "Like Wittgenstein I find the *aporiai* of the *Principles* more instructive than the solutions that the later work purports to give." Geach, *Truth, Love, and Immortality*, p. 63.

types of unit – whether perceiving them or thinking of them – also differ in fundamental ways.

Consider a number of particulars, which when arranged in a certain way become the parts of a whole that is another particular: two eyes, a nose, and a mouth, for example, when arranged in a certain way form a face, with the eyes, nose, and mouth as parts.⁴⁴ Although this example is simple enough, let us make things easier still by supposing that we have two ordinary particulars, a and b , that are related by the relation R and as a consequence form a physical object, a whole that has a and b as parts. The following are ways that a human subject S can apprehend units composed in various ways by the two particulars and the relation:

1. S perceives the physical object that has a and b as parts.
2. S perceives (the fact of) a 's having R to b .
3. S perceives that a has R to b .
4. S thinks of the physical object that has a and b as parts.
5. S thinks of (the fact of) a 's having R to b .
6. S thinks that a has R to b .
7. S thinks of the set $\{R, a, b\}$.

There are here four fundamental types of unit that are formed by putting things together: a physical object that has parts, a fact, a proposition, and a set.⁴⁵ In these simple cases, at any rate, the subject is related both to the unit and to each of the components of the unit, and being related to the components is a necessary condition for being related to the unit.⁴⁶

44 There is a discussion of wholes and parts from a perceptual point of view in Russell, *An Inquiry into Meaning and Truth*, chap. 24, where this example comes from.

45 In the *Principles*, chap. 16, Russell tried to give an inventory of modes of composition. He thought that there were only three kinds of relation between parts and a whole: the relation of a subclass to a class, set-theoretic membership, and the relation of a term to a complex (*Principles*, sec. 135). Following David Lewis (in *Parts of Classes*) Armstrong adds the mereological part-whole relation. None of them appears to recognize the sort of spatial part-whole relation where position and arrangement of the parts is essential to the part-whole relation and the whole is an ordinary particular. Lewis is perhaps concerned about problems with structural universals. On the other hand, this idea is at least implicit in Armstrong's talk of spatial structural universals.

46 It is not always a necessary condition. In many cases of thinking of a physical object, there is no need to think of the parts as individuals; consider thinking of a certain horse, or, if it is possible, thinking of a certain methane molecule. In the case of thinking of a large spatial collection, such as a flock of sheep, it is not possible for a subject to be aware of all the members, but presumably the subject must have some awareness of the nature and number of the members. In thinking of the set of prime numbers, it is clearly not necessary to think of all its members as individuals. And in perceiving the speckled hen you perceive speckles, but you do not know how many speckles you perceive.

Let us consider perception first. It is not clear how what is expressed by the sentence ‘*S* perceives (the fact of) *a*’s having *R* to *b*’ differs from what is expressed by ‘*S* perceives that *a* has *R* to *b*’. In both these cases it has to be true that *a* has *R* to *b* for the sentence to be true. This is in contrast to ‘*S* thinks of (the fact of) *a*’s having *R* to *b*’ and ‘*S* thinks that *a* has *R* to *b*’, where it has to be true that *a* has *R* to *b* for the first sentence to be true but not for the second. It appears that fact locutions presuppose truth, however facts are understood.⁴⁷

Russell apparently understood “perceiving that” in terms of perceiving a fact.⁴⁸ Ramsey, on the other hand, suggested that the statement ‘he perceives that the knife is to the left of the book’ means the same whether the knife is to the left of the book or not, and therefore cannot be understood in terms of a relation of a person to a unit.⁴⁹ Perceiving that *a* has *R* to *b* could, on the other hand, be regarded as a judgement that is based in some way on perception.

Even if facts were real units that could enter into causal relations and so be capable of being perceived, it would not be clear how perceiving the fact of *a*’s having *R* to *b* could be distinguished from perceiving the physical object that has *a* and *b* as parts. Strictly speaking, the physical object has the particulars *a* and *b* as parts, while the fact has *a*, *b*, and *R* as components, though both involve *a*, *b*, and *R* and nothing else. Since there is, presumably, a fundamental and irreducible ontological difference between the fact and the physical object, perceiving a fact should be a different sort of thing from perceiving a physical object, even if in both cases a person has to look in the same direction. Presumably the difference is to be explained in terms of a gestalt switch that subjects have to make as they turn without moving from perceiving a fact to perceiving a physical object.

On the other hand, if facts were units of the sort that do not enter into causal relations, it would be possible to maintain that facts are not objects of perception, despite ordinary language – ordinary language does not, and should not be asked to, tell us what we perceive. And on the view that facts are not units, but explained merely by the customary uses of

47 For Russell’s views on fact locutions, see *Principles*, p. 48. Griffin discusses this passage in “Terms, Relations, Complexes”, pp. 169–71. “Absolute Realism is ripe with double aspect problems; not surprisingly in view of the central tenet of absolute realism, that everything that can be referred to is a term, and for every thinkable distinction there is a difference of terms.” (p. 171)

48 Cf. “On the Nature of Truth and Falsehood”, pp. 156–57.

49 Ramsey, “Facts and Propositions”, p. 42.

locutions that include the word 'fact', there would be no difference at all between perceiving the fact of *a*'s having *R* to *b* and perceiving that *a* has *R* to *b*.⁵⁰ For there would be no units or entities that occur in one case that do not occur in the other case, and the way in which the relation *R* is perceived or thought of would be the same in both cases, whatever view is taken of the distinction between an abstract relation and a relation actually relating.

Let us now turn from perceiving the various units to thinking of them. If facts were units of any type, there would be a fundamental distinction between the fact with components *a*, *b*, and *R* and the physical object with parts *a* and *b*, and, therefore, there would be a fundamental distinction between thinking of the fact and thinking of the physical object, and it should be possible to think of one without thinking of the other.⁵¹ In both cases a person would be thinking of the same particulars and relation, and the attention would be directed in the same direction, so to speak; and it appears that the difference could also be explained in terms of a gestalt switch that subjects make as they turn, metaphorically speaking, from thinking of one to thinking of the other. On the other hand, if the notion of fact were understood merely in terms of the customary uses of locutions involving the term 'fact', then there would be no distinction between a subject's thinking of the fact of *a*'s having *R* to *b* and thinking truly that *a* has *R* to *b*.

However a fact is understood, thinking of a fact involves thinking of the relation that relates the particulars. According to immanent realism, the relation that is a component of a fact is a universal, a thing that can occur many times. Thinking of a universal is a matter of thinking of that one thing that can occur many times. It is not possible to think of a relation as a particularized relation that relates two particulars and no others, since on this view there are no such things – if there were, it would be a trope, a particularized property. In a sense a universal is always thought of as something general, the single nature that is found in many places, and it might be legitimate to say that it is thought of as something abstract. On the other hand, a universal is not found as something purely abstract, in the sense of existing in the Platonic heaven as an abstract

50 Cf. the discussion of the linguistic view of facts in Chapter 6, Section 6.3.

51 Facts as units are rather like particulars or objects; it is possible to think of a fact only if there is such a fact. But if there is no fact, then it is impossible to think of it; though it is possible to think as though thinking of a fact. Presumably this is analogous to the way in which it is possible to think as though thinking of a physical object when there is no such object.

entity. A universal is found only in places where it occurs instantiated by particulars.⁵²

It is not the case that thinking of a set of things is straightforward. Although a set is a unit and functions as such, so that thinking of a set is thinking of a single thing, what makes it a unit has the thinnest possible ontological standing, if it has any. There are difficulties associated with thinking of a set that are similar to the difficulties associated with thinking of a fact as a unit. In thinking of a set that is specified merely by specifying its members (as opposed to specifying what they have in common), thinking of the set itself involves thinking of all the members as individuals. Here also we have a case of a two-place relation between a subject and a unit that necessarily involves similar, subsidiary two-place relations between the subject and the components of the unit. The primary relation between the subject and the set is not a combination of the subsidiary two-place relations. Of course, most of the sets we think of, after the idea of a set has been illustrated by sets with disparate members, are thought of by thinking of what their members have in common.

If we compare thinking of a physical object with parts that are also particulars, thinking of a fact, and thinking of a set with disparate members, we can see that there are at least three different ways in which a subject can think of a unit that has components. In all three cases the subject has a primary relation with the unit and could possibly also have subsidiary relations with the components of the unit. The differences cannot be put down to mysterious powers of the human mind, at least in the case of a physical object with parts and in the case of a fact, since physical objects and facts are units that exist independently of what any subject might think. They do, however, represent basic and fundamental ways in which things can be put together that can be grasped by a human subject. If sets are real units, then there would be a third way in which things can be put

52 Someone might ask, "How can you think of a universal if it is not instantiated?" Among immanent realists, there is a division of opinion about the significance of whether a universal has been instantiated. Armstrong holds to an instantiation requirement, that there is a universal if and only if it is instantiated at some time past, present, or future; but he also believes in possible universals, which do the work of uninstantiated universals. ("A possible property or relation . . . is not *ipso facto* a property or a relation." *A Combinatorial Theory of Possibility*, p. 43) Others deny the instantiation requirement, and think that it can be said that there is a certain universal whether it is instantiated or not. This difference may have its origin merely in a difference of opinion as to the appropriate way to use the verb 'exist'. But whichever view is correct, thinking of a universal cannot be a matter of thinking of an instance of it. See Armstrong, *A Theory of Universals*, pp. 9, 10; *A Combinatorial Theory of Possibility*, pp. 54–57; and Newman, *The Physical Basis of Predication*, pp. 41–49.

together and a third way in which a subject could grasp a real unit. But if sets are not real units, then we have a way in which a subject can bring things together to form a fictional unit.⁵³ However, even if sets were not fictional units, it is at least conceivable that a subject should be able to bring things together in thought to form a fictional unit of some sort or another.

The moral of this story is that there are a number of fundamental ways in which components can be combined objectively to form a unit, and corresponding to these a number of ways in which the human mind can grasp objective unity. And it is at least conceivable that there should be a number of fundamental ways in which a subject bring components together in thought to form a fictional unit.⁵⁴ Since they differ from each other in fundamental ways, they could be said to differ from each other in ways that are mysterious. There should be nothing surprising, therefore, if propositions were to introduce another fundamental form of unity.

- 53 If aggregates, as understood by mereology, do not have an objective form of unity, then we have a second way in which a subject can bring things together to form a fictional unit.
- 54 There is an analogous change of mental attitude when someone changes his propositional attitude towards the same proposition, for example, from supposing that” to “believing that” to “knowing that”.

5

How Predicative Beliefs Correspond to the World

5.1 THE OBJECTIONS TO RUSSELL'S THEORY ANALYSED AS DILEMMAS

One of the motivations behind Russell's multiple relation theory was to avoid true belief being a matter of thinking of a certain fact, since true belief and false belief are the same sort of thing, and false belief cannot be a matter of thinking of a certain fact. The components of the proposition must be brought together in such a way that they do not have the sort of unity appropriate to a fact, and yet, apparently, they are not to form merely an ordered set or a list. Candlish thinks that no middle way exists.¹

For the mind, in judging that, say, *A* loves *B*, is supposed to bring the real things *A* and *B* and love, not just mental or linguistic proxies, into the appropriate relation without actually making *A* love *B*. These powers are not only magical but mutually inconsistent.²

True enough, if the relation "loves" is a relating relation, then it must relate particulars, and consequently a fact must exist. From which it follows that belief is possible only if the corresponding fact exists, even if belief cannot be credited with actually creating a fact. If, on the other hand, the relation "loves" is an abstract relation, then the unity that the terms of the belief have is that appropriate to an ordered set or a list. Candlish apparently assumes that the unity appropriate to a proposition is not that of a set or

- 1 For the sake of convenience, I speak of *a*, *b*, and *R* as the components of the belief, because they are also the components of the associated proposition and the fact that would make the belief true. Griffin has a more elaborate and more rational terminology. "Russell's Multiple Relation Theory", p. 215.
- 2 Candlish, "The Unity of the Proposition and Russell's Theory of Belief", pp. 115–16; cf. 122.

a list, or anything like them. He says that the mind “is supposed to bring the real things A and B and love, not just mental or linguistic proxies, into the appropriate relation without actually making A love B .” Of course it is not clear what the appropriate relation is. But if the appropriate relation is instantiation, as I think Candlish assumes, he is requiring that the particulars must both instantiate and not instantiate the relation, and that is clearly an impossible task.

These difficulties, which concern the unity of a proposition and the nature of the subordinate relation (such as “loves”), can be put in the form of dilemmas.

First Dilemma, Concerning Unity

Are the components (a , b , and R) assembled or disassembled? If they are assembled, then they constitute a fact, but propositions cannot be facts, because propositions as facts cannot account for false belief. If they are not assembled, then they do not form a unit and there is no proposition.

Second Dilemma, Concerning the Relation

Is the relation a relating relation or an abstract relation? If it is a relating relation, then it must relate the particulars, and, consequently, the components form a fact. If it is an abstract relation, then the form of unity of a proposition would be something like that of a set, and that does not bind the components together strongly enough. And how could an abstract relation that is the term of another relation unify a proposition?³

The First Dilemma assumes that in a proposition, the components form a unit, and that if they form a unit, they would be assembled. Now, although it does seem right that a proposition should be some sort of unit, the difficulty lies in regarding the components as *actually assembled*, for then it appears that a fact is the only unit that they could constitute. But there is no reason to assume that the components are *actually assembled*,

3 Griffin says: “The problem of propositional unity, however, is not to be resolved merely by appealing to relations as the source of propositional unity. To be sure there is no inconsistency in claiming that the relation $/R/$ is a constituent term of the proposition $/aRb/$ and is also responsible for the unity of the proposition: $/R/$ is just the sort of term that unifies a proposition. The trouble is that $/R/$ does not unify every proposition in which it occurs, for $/R/$, like all concepts, may occur either as meaning or as a term, and, when it occurs as a term, it is one of the terms related rather than the term which does the relating.” (“Terms, Relations, Complexes”, p. 166) When he says that the relation R occurs as a term, he means that it occurs as an abstract relation that is a term of another relation, such as Russell’s multiple relation.

and the discussions of the last chapter showed that there were a number of different types of unit they could form, with new and different types of unit being at least conceivable.

Without the distinction between an abstract relation and a relating relation, a distinction that was rejected in the last chapter, the Second Dilemma loses its force. A relation as understood by realists about universals is a single thing that can and, indeed, must, be thought of independently of how it is instantiated, though that single thing is something that is suitable to be instantiated by particulars.⁴

One of the roles the issue concerning the unity of a proposition plays in the criticism of Russell's theory is to make the charge that the theory is appealing to something mysterious, either a mysterious form of unity or a mysterious power of the human mind. But we have seen that all the known forms of unity differ from each other in fundamental ways that cannot be explained any further, and the ways that subjects apprehend the different types of unit – perceiving or thinking of them – also differ in fundamental ways. And there could be no objection, if instead of using the word 'fundamental', someone wanted to talk of them as *sui generis* or mysterious. I concluded that there would be nothing surprising if propositions were to introduce another fundamental form of unity.

An act of believing in Russell's original theory, an act that involves a subject, a relation, and particulars, has the sort of unity appropriate to a fact actually assembled, though it must be remembered that the assembling that the multiple relation does is done in thought, since the unity of an act of believing comes principally from the multiple relation, and therefore from thought. However, nothing was said in Russell's original theory about the unity of a proposition that might be abstracted from an act of believing. If a proposition could be abstracted, there is no reason why it should have a particularly strong form of unity.

For example, there is, as one might expect, a similarity between a proposition and the sense of a sentence. The sense of a sentence has the

4 In his discussion of whether the concept in the proposition "*A* differs from *B*" is general or specific, Russell says: "But the above argument does suffice to prove that the relation of *A* and *B* cannot be abstract difference: it remains tenable that, as was suggested to begin with, the true solution lies in regarding every proposition as having a kind of unity which analysis cannot preserve, and which is lost even though it be mentioned by analysis as an element in the proposition. . . . For, even if the difference of *A* and *B* be absolutely peculiar to *A* and *B*, still the three terms *A*, *B*, difference of *A* from *B*, do not reconstitute the proposition "*A* differs from *B*", any more than *A* and *B* and difference did." (*Principles*, p. 51) Russell is assuming here that the unity of a proposition comes from the relation, so that if the three components are presented together, say, as a set, the unity of the proposition is lost.

same components as a proposition and involves the same logical form, but it does not have a particularly strong form of unity, though it is possible to regard the sense of a sentence as a type of unit with a criterion of identity. The sense of a sentence does not have its components actually assembled, and yet a sentence succeeds in saying something.⁵

5.2 A FORMAL HYPOTHESIS IN DEFENCE OF RUSSELL'S THEORY

In Russell's original theory of belief the subject had a relation of acquaintance with each of the three components, and these subsidiary acquaintance relations were necessary conditions for belief. A revised version of Russell's theory that was looking for general acceptance would have to replace the acquaintance relations with "thinking of" relations; otherwise, the class of predicative judgements that could be dealt with would be too small, quite apart from obvious objections to the principle of acquaintance. Despite being necessary conditions, these two-place relations play no further role in the theory. It is the components themselves that are bound together in some way with the subject in an act of believing, not the two-place relations between subject and components. An act of believing could not have the three two-place relations of "thinking of" as components, since it does not make any sense to bind bare relations together in this way. Neither could an act of believing have as components three facts, where each fact included the subject, one component of the proposition, and the relation of "thinking of". The main difficulty with this suggestion is that the subject would appear three times in an act of believing, since it would appear in each of the three component facts.

In predicative belief the subject cannot think of the relation and of the particulars in the same way; it is not like thinking of a set, where the members, if thought of, would all be thought of in the same way, or like thinking of a physical object, where also the parts, if thought of, would all be thought of in the same way. The relation should play a role in an act of believing that is different from the role played by the particulars. Presumably, the different roles played by universals and particulars are related to the fact that they are different types of thing, though it is less clear whether one could infer from the basic characterizations of universal and particular how they differ in the role they play in belief.

5 In contrast, the components of a Platonic proposition could be thought of as actually assembled in some sense, but not, of course, spatially assembled; but knowing so little of that realm, anything can be claimed of it.

To account for the different roles of the particular and the universal, let us make a formal hypothesis about how the subject, believing, and the components a , b , and R are bound together. Although this is presented now as a formal suggestion, it can be made plausible by a discussion of some of the linguistic forms that are used to express predicative belief. In his encyclopaedia article on the correspondence theory, A. N. Prior suggested as a modification of Russell's theory of truth that the four-place multiple relation $B(, , ,)$ should be replaced by the three-place relation $()\text{Believesthat}R()()$, which takes only particulars as its terms.⁶ In his unsympathetic criticism of Russell's theory, Mark Sainsbury actually presented the theory in a similar modified form. He assumed that a sentence about predicative belief involved the sentence form:

'S believes, concerning . . . , that they are _____',⁷

a form that is implicit in the suggestion that in predicative belief a person believes of certain particulars that they are related in a certain way. Both these analyses ascribe different roles to proper names and to predicates, while Prior's sentence form has the additional advantage that it does not involve the pronoun 'they', which in Sainsbury's sentence form could be thought to represent a variable.

The formal hypothesis is that $\text{Believes}(S, a, b, R)$ should be analysed as $(S)\text{Believes}R(a)(b)$, where the universal R bonds first with the propositional attitude "Believes" to give a three-place relation, namely, $()\text{Believes}R()()$, which is then capable of bonding with three particulars, one of which is the subject.⁸ This hypothesis does not imply that the relation R is instantiated by the particulars a and b ; what is instantiated is the complex relation $()\text{Believes}R()()$, which is instantiated by the three particulars S , a , and b . It introduces an explicit asymmetry into the analysis of belief in that the subordinate relation R plays a role different from that played by the particulars. It could be said that the subject believes the relation of the particulars. The reader should note that what is proposed here is merely a formal hypothesis, and that the next section is devoted to giving an informal justification of this

6 Prior, "The Correspondence Theory of Truth", p. 229. He rejected Russell's theory in *Objects of Thought* (p. 9) because it involved regarding relations as abstract objects. He suggested in that work that a propositional attitude behaved at one end like a property and at the other end like a conjunction.

7 Sainsbury, *Russell*, pp. 64–65; cf. 225.

8 In *Theory of Knowledge*, p. 115, Russell uses the symbol ' $U(S, x, R, y, \gamma)$ ' for a complex involving understanding; it is an expression for a fact not a sentence. See also *ibid.*, p. 144.

formal hypothesis; given that what I say in the informal justification makes sense, my claim is that this formal combination is a good way of representing it.

There is a sort of complex chemistry of bonds going on here, similar to, but going further than, Frege's chemistry of saturated and unsaturated entities. A propositional attitude is neither a particular nor a relation. When a person believes a relation of certain particulars, the propositional attitude "believes" needs to combine with a relation, the subordinate relation, in order to form another relation, an intentional relation, that can take particulars as its terms. A propositional attitude, such as "believes", is unsaturated in two different ways: at the front end it is unsaturated in the usual way with an empty place that requires a particular to fill it; at the other end it is unsaturated in a different way, with an empty place that requires a universal to fill it. The result is something that is multiply unsaturated in the usual way, with a number of empty places that require particulars to fill them. This is why propositional attitude sentences always contain at least two verbs. The combination ()BelievesR()() takes as many particulars as arguments as the universal's valence plus one for the person who does the believing.

Candlish criticizes the multiple relation theory on the grounds that it makes believing a unique kind of relation, one which alone has the power to combine its terms into a belief, rather than just a collection of terms.⁹ This is supposed to credit the mind that believes with a mysterious power: "In other words, it is not a theory of judgement at all; it merely imposes a new jargon on the expression of what we knew already."¹⁰ But this is the sort of criticism that could be levelled at a large number of philosophical theories, because it is frequently possible to claim that a philosophical theory has not explained enough and has left some things mysterious. We have already said something about the charge that it introduces mysterious powers, and it is true that Russell's theory does not explain everything that we should like a theory of belief to explain. But even Russell's 1910 version of his theory could be defended by claiming that it is a theory that is on the right lines, ontologically speaking, and which can answer certain objections, in contrast to theories where belief is a two-place relation between a subject and a Platonic proposition or theories that involve mental or neural representations, which are not on the right lines, ontologically speaking.

9 Candlish, "The Unity of the Proposition and Russell's Theory of Belief", p. 117.

10 Ibid., p. 118.

In this analysis of belief, does the subordinate relation play a role like that of a universal, as a predicative entity, or does it play a role like that of a particular, as a non-predicative entity, something that is a subject of predication only? And if it must be one or the other, does the Second Dilemma arise again? No, that dilemma does not arise, since the Second Dilemma depends on an ontological distinction being associated with a distinction in role, and a relation as a universal (or as a form) is the same type of thing ontologically, whatever role it plays. A universal (or a Platonic form) can be thought of in two different ways: it can be thought of predicatively, when it is thought of a particular, as in belief or judgement, and it can also be thought of as a subject of predication, when something is thought of it. The way a universal is thought of, whether predicatively or as a subject of predication, is quite independent of any occurrences of the universal, or whether it occurs at all. Similarly, the way a Platonic form is thought of, whether predicatively or as a subject of predication, is quite independent of whether anything participates in it. Moreover, the different ways a universal is thought of are only different roles it can play in thought and therefore in language, not different roles a universal can play in the world; all that a universal can do in the world is occur, and there is only one way of doing that. All that a Platonic form can do is sit in the Platonic heaven and be participated in.

The *symbol* for a universal appears both in the sentence that describes an atomic fact and in the sentence that describes a propositional attitude, while, in contrast, the universal itself occurs in the atomic fact but does not occur in the propositional attitude fact. Even if one were to ascribe a high degree of reality to the intentional relation, $(x) \text{Believes} R(x)(y)$, nevertheless, the universal is only something that is thought of. Particulars, on the other hand, occur only once and can be thought of in only one way, namely, as subjects of predication. How a type of entity is thought of and how it occurs are distinct, though related, issues.

Our formal hypothesis introduces a role distinction based on the type distinction between relations and properties, on the one hand, and particulars, on the other. Since only a relation or property can combine directly with a propositional attitude, the relation or property plays a role in an act of believing that a particular cannot play, and, consequently, the formal hypothesis avoids what Griffin calls the wide direction problem.¹¹

This formal hypothesis also provides a solution to the narrow direction problem, which is usually just called the ‘direction problem’. The empty

11 Cf. Griffin, “Russell’s Multiple Relation Theory of Belief”, p. 222.

places in $(S)\text{Believes}R(\quad)(\quad)$ must be filled by the particulars a and b in the right order, just as the empty places in the relation $R(\quad)(\quad)$ need to be filled by the particulars a and b in the right order to make the belief true. The order of particulars in one reflects the order of particulars in the other, in the same way that the order of names in a sentence, according to some conventions, reflects the order of particulars under the relation. A subject's believing that Rab differs from a subject's believing that Rba , since $(S)\text{Believes}R(a)(b)$ differs from $(S)\text{Believes}R(b)(a)$. The relation $(\quad)\text{Believes}R(\quad)(\quad)$ is itself not always symmetric with respect to the last two empty places, and the ordering of the terms a and b in that relation is equivalent to the mind believing that a and b are related by R in a certain order. This is similar to Russell's 1912 attempted solution of the direction problem.

The formal hypothesis also solves the problem of the role of the *general logical form*. It is an internal property of the relation R , carried around, so to speak, by that relation itself, and thereby included in the analysis of predicative belief without its being something that is thought of; in other words, without its being one of the components of the belief as it is in Russell's 1913 version for permutative beliefs. The capacity to have a predicative belief depends on an implicit understanding of the nature of the relation and of its logical form, an understanding that is related to understanding the syntactic and semantic role of the predicate 'R'. The *mode of combination* of the components is the general logical form together with the order of the particulars under the relation, and, again, this is not an additional component and not something that is thought of. It is the subordinate relation R that is thought of the particulars, and thought of them in a certain way; the mode of combination, instead of being something that is thought of, becomes an aspect of how the subject thinks of the particulars¹²

5.3 INFORMAL JUSTIFICATION OF THE FORMAL HYPOTHESIS

In this section informal and intuitive reasons will be given to support the formal hypothesis that was introduced in the last section in order to solve certain problems associated with Russell's theory. For Aristotle, part of

12 The most specific logical form plays no role in this theory as a unit. However, the internal properties that figure in the most specific logical form may play a role in how the subject thinks of the particulars and the universal.

the definition of truth was “to say of what is that it is, is true”.¹³ In a theory that focuses on believing, that would become “to believe of what is that it is, is true” – “saying” merely being a way of expressing a belief. “What is” is not “which things exist”; it is more like “how things are” or “the way things are”. So Aristotle’s admirably compressed language can be expanded as follows: “to believe concerning how things are that they are that way, is true” or “to believe concerning the way things are that they are that way, is true”. So also, Russell’s theory is intended to give an account of what it is for a person to believe that things are a certain way.

But what is it for things to be a certain way? When a person believes that things are a certain way, what is the belief is about? Our previous discussion, and common sense for that matter, lead us to believe that predicative beliefs are about particulars, as opposed, for example, to being about facts or Platonic propositions. And predicative beliefs are about particulars in a way that they are not about the relations that are believed to relate them. In the case of a number of particulars arranged in a certain way, the way things are is primarily the way the particulars are arranged, so that the “how” in “how things are believed to be” has to do with what is believed of the particulars. We can, therefore, say that a subject believes of certain particulars that they are arranged in a certain way – this is idiomatic English, even though in the customary philosophical idiom the “that” introduces the proposition as a whole. Changing the order, it becomes “a subject believes arranged in a certain way concerning certain particulars”, which, though not entirely idiomatic, makes sense.

The formal hypothesis introduces an asymmetry into the act of believing, which represents the fact that when there is a predicative belief, attention is directed primarily towards the particulars, since the belief is about the particulars first, and not in the same way about the relation that is thought of them. This represents the fact that the thought of the subject, including the relation in some way, is directed primarily towards the particulars and the relation is part of how the person thinks of the particulars.

The alternative view is that when a person believes that things are a certain way, the belief is not about the particulars but is instead about the particulars and the relation. The “how” in “how things are believed to be”

13 The full quote is “to say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, or of what is not that it is not, is true.” *Metaphysics* 1011^b, 26–29.

would then have to do with the way the particulars and the relation are related to each other to form a fact. If Austin's theory of truth were a theory of belief, rather than a theory of truth makers, which is what I take it to be, it would be a theory of this type.¹⁴ On this view, the particulars and the relation would be on much the same footing, while how the particulars and the relation are related to each other, which I have called the "mode of combination", would be on a different footing. The mode of combination would be something that the subject believes of the particulars and the universal. There is clearly a possibility of a regress here, as Russell was aware in his discussion of the 1913 version of his theory of belief.¹⁵ The next level of the regress would be believing that they-were-related-to-each-other-in-a-certain-way of the particulars, the relation, and the mode of combination. In general, it appears that in predicative belief something has to play the role of being believed of, or thought of, some other things.

Quite apart from the convenience of stopping a regress at the first level, the way that we think and speak indicates that the relation itself should play the role of being thought of the particulars, rather than the mode of combination being thought of the particulars and the relation. It is also preferable ontologically speaking, as explained in the next chapter. There is a difficulty with the second level and subsequent levels in that the mode of combination is itself a combination of the logical form as a structure and how the particulars are arranged within that structure, which is not a unified thing. It is difficult to know what it would be to think such a mode of combination of certain particulars and a relation. These considerations explain some of the difficulties Russell was having with his 1913 version of his theory. It also follows that there are no reasons from considerations of this sort or, indeed, from our analysis of predicative belief to posit the existence of facts, since there are no advantages and some disadvantages in thinking of logical form as the structure of a fact.

5.4 CORRESPONDENCE FOR PREDICATIVE BELIEFS

In *The Problems of Philosophy* of 1912, Russell regarded his theory as a version of the correspondence theory of truth: "Hence we are driven

14 See Chapter 3, Section 3.7. It depends on how you interpret Austin's notion of "type of state of affairs". Mode of combination of the components of the state of affairs is at least a good guess.

15 Russell, *Theory of Knowledge*, p. 144.

back to correspondence with fact as constituting the nature of truth.”¹⁶ Russell gave the conditions for true belief as follows: “Thus a belief is true when it corresponds to a certain associated complex, and false when it does not.”¹⁷ In other words, the *belief complex* “Believes(*S*, *R*, *a*, *b*)”, which is presumably the truth bearer, must correspond to the associated *object complex* “*Rab*”, the truth maker.

According to Russell, “believes” is the uniting relation in the belief complex, that is, the cement for the belief complex, while the subordinate relation “loves” is one of the terms of the believing relation, a brick rather than cement. In the belief complex, the subject and the components of the belief are arranged in a certain order by the sense of the believing relation. In the associated object complex, “loves” is the uniting relation; it is now cement rather than a brick, and the particulars are arranged in a certain order in the object complex by the sense of the relation “loves”.¹⁸

This formulation involves a distinction similar to that between an abstract relation and a relating relation – brick versus cement. If this distinction were an ontological distinction, then it could be objected that the two complexes do not correspond. The reply to this objection would be that since there is a systematic correlation between an abstract relation and a relating relation, there is, indeed, a correspondence between the two complexes, merely a more complex type of correspondence. It is correspondence that is being claimed, not identity. On the other hand, if there is no ontological distinction between an abstract relation and a relating relation, but merely a single relation, which is a universal (or form) playing different roles in language and thought, then this difficulty does not arise.

Another difficulty is that in the belief complex, the particulars are ordered by the “believes” relation, while in the object complex, the particulars are ordered by the subordinate relation *R*, and it is not clear how the two sorts of ordering correspond. It could be answered that being ordered by the “believes” relation is equivalent to the particulars being ordered in thought under the subordinate relation *R*, or being believed to be ordered by the subordinate relation *R*. Or the correspondence of the ordering of the particulars in the belief complex with the ordering

16 Russell, *The Problems of Philosophy*, p. 123; cf. “On the Nature of Truth and Falsehood”, p. 158.

17 Russell, *The Problems of Philosophy*, p. 128.

18 *Ibid.*, chap. 12, pp. 126–29. “This property of having a “sense” or “direction” is one which the relation of judging shares with all other relations. The “sense” of relations is the ultimate source of order and series and a host of mathematical concepts . . .” (p. 127).

of the particulars in the object complex could be regarded as a matter of convention.

The version of the theory of truth for predicative beliefs defended in this chapter is descended from Russell's 1912 version, via the formal hypothesis influenced by Prior, together with some interpretation.¹⁹ In terms of facts, the correspondence conditions for true belief can be given as follows.

A subject's predicative belief is true if and only if:

1. The particulars that the subject is thinking about and the relation that the subject thinks of them actually form a fact.
2. In the case of an asymmetric relation, the order of the particulars that the subject is thinking about in the belief fact reflects the order of the same particulars in the object fact.

A predicative belief is not true (that is, false) by default if either of these conditions does not hold.

The belief fact is formed first from the combination of "Believes" with the relation R , and then from the combination of the relation " $()$ Believes $R()$ " with the particulars S , a , and b .²⁰ In the object fact, the relation occurs instantiated by the particulars a and b , while in the belief fact, the relation does not occur; rather, it is thought of in a certain way, as explained earlier. Despite the fact that the symbols ' Rab ' are found in the expression ' S Believes Rab ', the object fact is not a component of the belief fact on account of the way the belief fact is constructed.²¹

- 19 Prior gave the conditions for truth in terms of a conjunction: "' X says (believes) truly that p '" means " X says (believes) that p , and p "; " X says (believes) falsely that p " means " X says (believes) that p , and not p .'" ("The Correspondence Theory of Truth", p. 229) Prior gives this a redundancy interpretation taken from Ramsey. The ascription of truth, and talk about facts, have to be understood as essentially adverbial in nature; and attaching phrases like "it is true that" or "it is a fact that" produces a sentence that says no more than the original sentence.
- 20 In his discussions of Russell's 1913 version of his theory, Griffin suggests there needs to be "some convention determining the order in which the object terms are to be substituted for the variables in the form. Such a convention might be built into the judgment relation itself (as suggested by Wisdom . . .)", "Russell's Multiple Relation Theory of Belief", p. 222. See Wisdom, *Problems of Mind and Matter*, p. 203. A three-place "betweenness" relation is not symmetric, since one particular is picked out to be between the other two; but there is no reason why in a three-place relation there should not also be an order distinction between the other two particulars.
- 21 In this sentence I have used the symbols for the corresponding sentences, because I have not developed a distinct symbolism for facts.

Avoiding facts as units and fact locutions, the correspondence conditions for true belief can be given as follows.

A subject's predicative belief is true if and only if:

1. The particulars that the subject is thinking about actually instantiate the relation R that the subject thinks of them.
2. In the case of an asymmetric relation, the order of the particulars (that the subject is thinking about) under the intentional relation $S\text{Believes}R(\quad)$ (\quad) reflects the order of the particulars under the relation R .

A predicative belief is not true (that is, false) by default if either of these conditions does not hold.

One of the difficulties with a formulation that does not make mention of facts is a lack of things, or units, for there to be a correspondence between. One option would be to suggest that the correspondence is between "how things are" and "how things are thought to be", where the locutions introduced by the word 'how' do not correspond to things or units, and where the correspondence conditions give the relevant sense of correspondence.

But if it were insisted that correspondence requires things or units, a second option would be to abandon the term 'correspondence', which is an option, since nothing in the conditions for true belief depends on the use of the term 'correspondence'. It would then become a type of realist theory of truth for predicative beliefs. Even Austin is prepared to go some way in this direction:

I gave (somewhat qualified) support to the common English expression that a true statement is one which 'corresponds with the facts'. I professed not to like this, in its own way doubtless unexceptionable, terminology, and preferred some jargon of my own, in which 'facts' and 'corresponds' do not occur at all.²²

In effect, he is suggesting that the term 'correspondence', though a natural enough term, is not essential, though he is not prepared to go as far as Strawson in suggesting that 'corresponds with the facts' is "as it were a 'fused' idiom, not to be taken at all at its apparent face-value." It is interesting that neither 'fact' nor 'corresponds' appears in either Prior's or in Kirkham's formal analysis of Russell's theory of truth.²³

22 Austin, "Unfair to the Facts", p. 102, in *Philosophical Papers*. See the discussion and quotes in Kirkham, *Theories of Truth*, p. 135, though his quote from Austin is unfair to Austin.

23 Prior, "The Correspondence Theory of Truth", p. 229; Kirkham, *Theories of Truth*, p. 122.

A third option would be to reintroduce facts as things or units without reality, which would then be either units that were objective but not real, in some neo-Fregean sense, or fictional or arbitrary units, in Russell's sense. All that would be required of such facts is a criterion of identity.

Of these options I prefer the first, even though its use of the notion of correspondence could be regarded as somewhat informal. For truth bearers, units of some sort are required, though the content of the act of believing, or proposition, is to be preferred as the appropriate unit rather than the act of believing. A proposition is true when anyone who believes it is related to the world in such a way that the correspondence conditions are satisfied. On this view, a proposition is a unit that has a criterion of identity, but which does not exist independently of a person. Since a proposition is a unit distinct from any units found in the world – it is a different type of thing from a fact, for example – it makes good sense to say that it corresponds to the world. The somewhat difficult issue of the nature of propositions is the subject of the next sections.

5.5 CRITERION OF IDENTITY FOR RUSSELLIAN PROPOSITIONS

The accounts of correspondence for beliefs made no reference to propositions, where a proposition is the content of a belief or what the subject believes. Nevertheless, there is really only one aspect of the act of believing that is involved in the correspondence, namely, the propositional aspect, and for this reason propositions can be regarded as truth bearers. Taking our cue from Frege, as in the discussion of sentences, a criterion of identity for propositions can be obtained from a condition for two acts of belief to be similarly sensed, to borrow a term from the discussion of sentences:²⁴ subject *S*'s predicative belief is similarly sensed to subject *T*'s predicative belief if and only they are true under the same conditions; in other words, they ascribe the same relation to the same particulars in the same way, where 'in the same way' means primarily the same order under the relation. A criterion of identity for propositions can be obtained as

24 See Frege, *The Foundations of Arithmetic*, sec. 65. For an act of believing to be sensed, the subject must be thinking about certain particulars, not merely imagining that there are such particulars, and must be thinking a certain relation of them, and the number of particulars must equal the valence (adicity) of the universal – weakest condition. A stronger condition would be that it must be logically possible for that universal and those particulars to form a fact. See Chapter 3, Section 3.5.

follows: let us stipulate that the sentence ‘subject *S*’s predicative belief is similarly sensed to subject *T*’s predicative belief’ means the same as the sentence ‘the content of, or proposition involved in, subject *S*’s belief is the same as the content of, or proposition involved in, subject *T*’s belief’.

Although Russell’s theory implies a contextual account of the nature of propositions, as things that are only found, or only occur, when a subject is thinking in a certain way, a case can be made for regarding a proposition as some sort of unit.²⁵ Independent existence is not a condition for being a unit, and it is not a condition for being a real unit, either. People believe truly on account of what they believe; it is the proposition end of a belief fact that corresponds to the fact that makes it true. A proposition is something that can be found in many different contexts; it is possible for many different persons to believe the same proposition; and it is possible for different persons to have different attitudes to the same proposition, since what is merely believed by one person could be known by another, for example.

A proposition must also be regarded as a unit because it is possible to think about a proposition, which does involve a two-place relation between person and proposition, as opposed to thinking it, which involves thinking about certain particulars in a certain way. In fact, Russell’s theory makes it easier to make a distinction between thinking a proposition and thinking about a proposition than does the theory that thinking a proposition is a two-place relation between a person and a proposition. In many cases, thinking about a proposition is accompanied by thinking about its components in a way that is similar to the way that thinking of a whole can be accompanied by thinking about its parts, or in the way that thinking of a set can involve thinking about its members.

25 In Russell’s earlier works, what is true or false is a judgement, which is type of fact; there are no propositions. But in “Logical Atomism”, pp. 223–27, he makes the following interesting statement: “You have to say that you believe propositions. The awkwardness of that is that obviously propositions are nothing.” (223) “[T]he belief does not really contain a propositions as a constituent but only contains the constituents of the proposition as constituents.” (224) “[T]here is not a single thing that you are believing.” (224) “The first is the impossibility of treating the proposition believed as an independent entity, entering as a unit into the occurrence of the belief. . . .” (226) “[W]hat is true or false are a special class of facts that we call beliefs.” (227) “The truth or falsehood depends on the proposition that enters in.” (228) There are two interpretations of this obviously aporetic discussion. Either the use of the term ‘proposition’ is a mere *façon de parler*, or propositions are dependent things that are explained contextually. I have chosen to develop the latter idea in my modification of Russell’s theory.

Propositions are things that occur in belief contexts or other propositional attitude contexts, and they are explained in terms of their occurrence in such contexts. They are in one sense of the term “abstract” things since they are regarded as abstracted from any particular belief context, in much the same way that a universal can be thought about as abstracted from any particular occurrence of it. The traditional Platonic proposition was regarded, without any details being supplied, as a real unit, with its components really and eternally bound together. But the view put forward here is that the components of a proposition are not united in the way that the components of a whole or a fact are supposed to be united; they are thought of as united, and being thought of as united can take place only in a context like a belief context.

Propositions explained in this way can be called Russellian propositions, for the fairly obvious reason that they are explained in terms of Russell’s theory of belief. They are immanent propositions, as opposed to Platonic transcendent propositions. They are also, in effect, a type of singular proposition and have the same criterion of identity, though no metaphysical account is usually given of the nature of the current, familiar notion of singular proposition.²⁶ Russellian propositions are distinct from senses of sentences. They are explained in different ways and Russellian propositions are real units, whereas senses of sentences are not real units. But because there is a one-to-one correspondence between senses of sentences and propositions, on account of their having the same criterion of identity, a sentence expresses a proposition in virtue of having a sense. Having argued that propositions are units, the following sections argue that they are real units.

26 For the notion of singular proposition, see Kaplan, “Demonstratives”; Fitch, “The Nature of Singular Propositions”; Recanati, *Direct Reference*, chap. 3. Mark Sainsbury says that a number of philosophers today, such as Kaplan and Recanati, accept theories similar to Russell’s but do not appreciate that they raise a problem of propositional unity. “How can some thing say something?”, pp. 144–45. Salmon reserves the term ‘Russellian proposition’ for ones containing logically proper names, which refer to things of “intimate epistemic acquaintance”; they are propositions that “are only entertained very briefly and never communicated”. *Frege’s Puzzle*, p. 46. Being uninterested in Russell’s epistemological doctrines, I have used the term in a more general sense. Recanati, using a philosophy of language approach that focuses on what is communicated by a sentence, defends singular propositions, but thinks that there is a case for the neo-Fregean view that the mode of presentation is part of the semantic content. The term ‘semantic content’ is somewhat fluid. Salmon distinguishes between what is semantically encoded and what is pragmatically imparted by a sentence, and reserves the term ‘semantic content’ for what is semantically encoded, which he identifies with what is said in the Tractarian sense. Recanati appears to use the term in a broader sense. See the discussion of identity sentences in Chapter 8, Section 8.9.

A case can be made for regarding intentional relations, such as “() thinks of ()” and “()Believes R () ()”, as real.²⁷ For those that believe in facts, it would follow that the fact of S Believes $R(a)(b)$ would be a unit with some sort of reality, and for those who do not believe in facts, the particulars S , a , and b would be bound together by a relation that is real. But even this is not the sort of unity that is possessed by a proposition.

When a subject is thinking of an object, the relation of “thinking of” can be called an intentional relation.²⁸ Intentional relations are a kind of what Keith Campbell calls unilateral relations, which are relations that make a difference to only one of their terms; or, to use the language of the metaphysicians, a unilateral relation has a monadic foundation in one term and no monadic foundation in the other term.²⁹ Campbell says that Aristotle gave “knowledge” as an example of a unilateral relation. In the case of an intentional relation the term that is modified is a person or a person’s mind.

Grossmann has propounded two nested ontological dilemmas for intentional relations:³⁰ either a mind (or a person) is related to what it is thinking about, or it is not. If it *is not* related to what it is thinking about, a non-relational account of intentionality must be given, but no plausible account is available. If a mind *is* related to what it is thinking about, then when a mind is thinking about something like Pegasus, either an intentional relation holds between a mind and a non-existent entity, implying that intentional relations are far from ordinary, or what we normally think of as non-existent objects exist in some sense. Grossmann concludes that we are faced with either far from ordinary relations or far from ordinary objects. His view is that we can think of things that do not exist, and that there are intentional relations, which are abnormal relations, that can connect a person with an object that has no being at all – they are

27 The reader should note that the familiar mediaeval notion of real relation is narrower. Intentional relations are real relations in the sense in which I use the term. See Chapter 2, Section 2.4.

28 For a discussion of Brentano and others, and, by implication, Chisholm, on intentional relations, see Grossmann, *The Categorical Structure of the World*, pp. 189–203, and “Intentional Relations”.

29 See Keith Campbell, *Abstract Particulars*, pp. 104–5. A foundation for a relation is a monadic property, and for a foundationalist like Campbell all relations have a foundation in monadic properties of their terms. See also Russell, *Principles*, sec. 214, and Newman, *The Physical Basis of Predication*, pp. 136–41.

30 See Grossmann, “Intentional Relations” and *The Categorical Structure of the World*, pp. 189–203.

abnormal relations just because they can connect an existent subject with the non-existent object.³¹

The resolution of these dilemmas lies, I think, in a distinction implicit in Frege between appearing to refer and succeeding in referring, which is based on his analogy between thinking of an object and perceiving an object. When a person is thinking of Pegasus there is an *intentional state* that as far as the person is aware is the same sort of state as thinking of an actual horse (albeit with wings), but does not, in fact, involve an *intentional relation* or, indeed, a relation of any sort with a particular. It merely appears to the person that he is thinking of a horse of a certain type; or we can say that he thinks as though thinking of a horse of a certain type. The perceptual analogy of this situation is someone who dreams of a horse or who hallucinates about a horse. As far as the person is aware, it is the same sort of state as perceiving a real horse; but although the person is in a perceptual intentional state, there is no perceptual intentional relation with any sort of particular.³² It merely appears to the person that he perceives a horse of a certain type; or we can say that he perceives as though perceiving a horse of a certain type.

It must be admitted that intentional relations are relations with unusual characteristics. There are a number of conditions for an intentional

31 Grossmann, *The Existence of the World*, p. 93. See also Grossmann, "Intentional Relations" and *The Categorical Structure of the World*, pp. 189–203. He disagrees with Russell's assumption (of *The Principles*) that *being* is the most general category under which things can be classified; he thinks *object of the mind*, or just *object*, is the most general notion, which does not imply existence or any other kind of being. One of his aims in *The Existence of the World* is to deny that there are modes of existence (Russell's view in *The Problems of Philosophy*) and to defend univocal existence.

32 For this analogy, see Frege, "Sense and Reference", and Salmon, *Frege's Puzzle*. In "Sense and Reference", Frege says that a sense is analogous to the internal real image in a telescope (*reelle Bild*), but he must mean the virtual image that is projected by the telescope as a whole. The analogy involves direct realism about perception rather indirect realism or an adverbial analysis. We are not aware of the characteristics of the intermediate real image. In some circumstances, it may be right to say that someone "sees" a virtual image, but that is only a way of speaking. The moon is what you see; the virtual image produced by the telescope is how you see it. For the view of the sense of a proper name presupposed here, see Evans, *The Varieties of Reference*, p. 17. Russell and McGinn, claim, for essentially linguistic reasons, that mere objects of thought or mere intentional objects exist (Russell, *Principles*, p. 43; McGinn, *Logical Properties*, chap. 2; see, particularly, p. 41 for the basis in linguistic practice). But that is as silly as saying that when I am dreaming or hallucinating there is an object of perception, which actually exists. It is possible to think as though thinking of an object (Pegasus, Sherlock Holmes) when there is in fact no object to think about, and it would be natural on those occasions to use a proper name, but on such occasions the linguistic practice would be only like reference; it would not be reference because there is nothing to refer to.

relation, some of which are internal and some external: (1) The subject must possess certain mental and neural properties – some of these would represent internal conditions. (2) The object of thought or perception must exist – an external condition. (3) There must be some sort of link between the subject and the object so that the thought of the subject is directed towards *that* object – presumably includes external conditions.³³ The external conditions in (2) and (3) do not entail the internal conditions contained in (1); neither do the internal conditions entail the external conditions. All three conditions are required for an intentional relation.

A person thinking of an object and a person perceiving an object are both examples of intentional relations, and they have analogous internal and external conditions. Intentional relations are not unique in having both external and internal conditions. A case can be made that both external and internal conditions are required for some cases of justified belief: for example, in order for a person to be justified in believing a proposition on the basis of a mathematical proof, the proof must be valid (external condition) and the person must understand the proof to be valid (internal condition).

What distinguishes an intentional state from an intentional relation is the absence of an object that thought or perception is directed towards: where in the case of an intentional relation the subject succeeds, in the case of an intentional state the subject fails. There are therefore external as well as internal conditions for an intentional state: (1) The subject must possess certain mental and neural properties – these are monadic properties and some would represent internal conditions. (2) There must exist no suitable object such that the thought, or perception, of the subject is directed towards it – an external condition.³⁴ An intentional relation is irreducibly relational, whereas an intentional state is irreducibly non-relational, yet the causal powers that a subject would possess in virtue of being a term of an intentional relation appear to be exactly the same as those a subject would possess in virtue of instantiating a corresponding intentional state.

It is possible for a person to be in the mental state usually associated with thinking of an object of a certain kind and there be no such object,

33 A detailed analysis of internal and external conditions for intentional relations would depend on what theory of reference was adopted.

34 In the case of an intentional relation, the subject is thinking of a unique object, and which object is being thought of is determined uniquely in some way. In the case of an intentional state, there is no suitable object. It is not the case that a unique object is determined in some way and that the unique object unfortunately fails to exist or exists as a possible object.

in the same way that it is possible for a person to be in a perceptual state usually associated with perceiving an object of a certain kind and there be no such object. It could be said that the monadic mental and neural properties partially determine the intentional relation, or that associated with certain monadic properties there is an expected intentional relation, which may or may not be instantiated. This is a peculiarity of intentional relations.³⁵

If intentional states as a type of mental state are real, as seems reasonable, why shouldn't intentional relations be real also? If the unsuccessful version is real, shouldn't the successful version also be real? It would be a mistake to think that in the case of an unsuccessful attempt to think of an object an intentional state was instantiated while in the case of a successful attempt to think of an object both an intentional state and an intentional relation were instantiated, as though an intentional relation were something added to an intentional state when successful.³⁶ When a person is successful in thinking of an object, that person does not instantiate a monadic intentional state; the person and the object instantiate an intentional relation. It is simply not relevant that subjects may not know whether they instantiate an intentional state or are one term of an intentional relation. And it is not relevant that an intentional state and an intentional relation can be associated with the same causal powers, since in one case they are the causal powers associated with an intentional state and in the other case they are the causal powers associated with an intentional relation. Neither is it relevant that an intentional relation makes a difference to only one of its terms: spatial relations, for example, make no difference to either of their terms but are nevertheless respectable relations.

5.7 RUSSELLIAN PROPOSITIONS AS CONSTRUCTIONS

The three-place relation $(x) \text{Believes} R(x)(y)$ is an intentional relation, and it is reasonable to suppose that it is real in the same way that the

35 Evan Fales is right, in a sense, to say that when I think of Pegasus, I do not expect Pegasus to exist. This is related to the issue of how to explain that fictional sentences do in a sense make sense, an issue that I do not discuss. When I am caught up in the fiction I do expect there to be a winged horse out there, and accompanying that there is an expectation of an intentional relation. But when I reflect upon what I am doing, I obviously do not expect Pegasus to exist.

36 When there is an intentional relation, the subject instantiates certain monadic properties (mental or neural) that can be regarded as the monadic foundations of the intentional relation, but those properties are not the same as an intentional state.

two-place intentional relation “thinking of” is. But it is not clear what sorts of things ‘()Believes*Rab*’ and ‘()–*Rab*’ signify, though we should like to call the latter a proposition. In Section 5.5 of this chapter I argued that propositions were units, and in the previous section I argued that intentional relations were real. *That propositions have real components and are units makes it plausible to suggest that they are real units.*

Consider the predicate ‘revolves around the sun’. It is a general predicate in that it can be predicated of many particulars, but Armstrong denies that it refers to a universal on account of its involving essential reference to a particular, namely, the sun. On the other hand, he does admit relational properties as genuine properties or real things, where a relational property is something referred to by a relational predicate such as ‘revolves around a star’.³⁷ Such relational properties are complex, and they have monadic properties and relations as their components. If ‘*S*’ is the predicate ‘star’ and ‘*R*’ the predicate ‘revolves around’, then the sentence ‘a revolves around a star’ can be analysed as ‘ $(\exists x)(Sx \ \& \ Rax)$ ’ and the relational predicate ‘revolves around a star’ as ‘ $(\exists x)(Sx \ \& \ R(\)x)$ ’. Because relational properties are analysable in this way, Armstrong regards them as of “little ontological importance” and as involving “no addition to our ontology”.³⁸ Although Armstrong does not discuss their causal powers, it appears that the causal powers of a relational property are nothing other than the sum of the causal powers of its components, from which it appears that relational properties are less fundamental than their components.³⁹

The causal powers of a universal with components would be merely the sum of the causal powers of its components. Hence, if there were such universals they would be like relational properties in not having high ontological significance. The causal powers of the components of a relational property do not add in the way that vectors add to give a resultant vector, because they are different sorts of thing. The causal powers of a relational property are nothing other than the “collection” of causal powers of the components; there are no additional powers that come into being just because the components are combined in this way, given that there

37 Armstrong, *A Theory of Universals*, pp. 78 and 146.

38 *Ibid.*, pp. 78 and 80.

39 It is only in the case of an emergent property that the causal powers of the complex property would be something in addition to the causal powers of its component properties and relations, but there is no reason to regard a relational property as an emergent property. On the other hand, Evan Fales suggests that the property of revolving around the sun does confer certain causal powers on a body, such as having a certain angular momentum with respect to the position of the sun.

are no emergent powers. Nevertheless it is difficult to know what term to use. ‘Sum’ seems to suggest *resultant*, ‘set’ is inappropriate because the powers are collected together in one place, so perhaps ‘collection’ is the best term.

Though there seems to be no reason why a universal should not have other universals as components, there does appear to be something strange about a universal having a particular as a component, on account of the radical difference in nature. Moreover, it is difficult to understand the nature of the causal powers that a property corresponding to the predicate ‘revolves around the sun’ would have. A particular possesses causal powers on account of possessing certain monadic properties, and the sun as a physical object has a large number of different causal powers associated with its many monadic properties. All these have a claim to being causal powers associated with the hypothetical property of “revolves around the sun”, but they cannot be credited to a particular of which it is true to say that it revolves around the sun. There are, in fact, similar difficulties for the predicate ‘revolves around a star’.⁴⁰ Let us say that a predicate that involves a proper name, like ‘revolves around the sun’, signifies a construction.⁴¹ A construction is like a universal in that it can be instantiated by many particulars.

Intentional relations give rise to intentional constructions such as that signified by the predicate ‘() thinks of Bismarck’. If Frege is thinking of Bismarck and Frege is thinking of Odysseus, the mental and neural properties of Frege will be of the same kind in both cases. But in the case of Bismarck there is an intentional relation, and therefore the predicate ‘() thinks of Bismarck’ signifies an intentional construction, while in the case of Odysseus there is only an intentional state, since there is no such person, and therefore the predicate ‘() thinks of a Odysseus’ does not signify a construction, according to our use of the term.

Starting with the sentence ‘SBelieves*Rab*’, it is possible to form the expression ‘()Believes*Rab*’, which signifies a construction. It is also possible to form the expression ‘()–*Rab*’, where – is to be filled by an expression that signifies a propositional attitude. It signifies a proposition,

40 One difference between “revolves around a star” and “revolves around the sun” is that the property of being a star carries with it fewer causal powers than are possessed by the sun.

41 For Russell, propositions are incomplete symbols. *Theory of Knowledge*, p. 109. Prior, in *Objects of Thought*, pp. 8–9, calls propositions logical constructions despite his rejection there of Russell’s theory of belief. He refers us to the sophisticated account of logical construction found in John Wisdom’s papers “Logical Constructions”. My use of the term ‘construction’ is suggested by the work of Russell, Wisdom, and Prior.

which can be regarded as a type of intentional construction. A proposition as an intentional construction is similar to a universal in that it is not an entity that can exist in isolation, but is only found when believed by a person. Because it is sharable like a universal, it can be regarded as a unit.

Frege, on the other hand, believed that thoughts, his version of propositions, possessed a sort of partial actuality (or reality), an actuality that showed itself in the “performance of the thinker”, though the actuality of thoughts is different from that of ordinary things on account of a lack of “reciprocal action” – thoughts can act through the performance of the thinker, but they cannot be acted upon. For Frege, a thinker does not create thoughts but takes them as they are.⁴² Moreover, Frege’s thoughts differ from our Russellian propositions, because there can be a thought even when there is no particular that is thought about, so that a thought about Bismarck and a thought “about” Odysseus are both equally thoughts.

5.8 THE IDENTITY THEORY OF TRUTH

It would be fairly natural to formulate the conditions for true belief in terms of “how things are believed to be” being identical with “how things are”, so instead of a correspondence theory of truth we should have an identity theory of truth. Thomas Baldwin credits a number of philosophers at the beginning of the twentieth century, such as Bradley, Moore, and Russell, with an identity theory of truth. He explains the theory as follows:

It is basically the thesis that the truth of a judgement consists in the *identity* of the judgement’s content with a fact. . . . The judgement that snow is white is true if and only if it is a fact that snow is white. Hence, one might say, the truth of the judgement consists in its content’s *being a fact*, and thus in its content’s being *identical* with a fact – the fact that snow is white.⁴³

Though similar to the redundancy theory, it shares something with the correspondence theory that it does not share with the redundancy theory, namely, the assumption that “the truth of a judgement consists in a relationship between it and reality.” The identity concerned must, of course, be numerical identity. In contrast, when Alston says that “the proposition and the fact that makes it true share the same propositional content”, he is

42 Frege, “Thoughts”, 371–72. The use of the term ‘actuality’ in “Thoughts” suggests the distinction between *actual* (or *real*) and *objective* made in *The Foundations of Arithmetic*.

43 Baldwin, “The Identity Theory of Truth”, p. 35.

saying that there is qualitative identity, where fact and proposition remain distinct entities and presumably distinct kinds of entity.⁴⁴

The identity theory credited to Moore and Russell is best explained in terms of one important contemporary view of states of affairs and facts. In all cases of judgement, what is judged is a proposition, but in true judgement the proposition is identical to an actual state of affairs, in other words, a fact. In false judgement, the proposition is identical to a non-actual state of affairs, which has the same status as a possible world, however understood – though this does not explain the false judgement that $2 + 3 = 7$.⁴⁵ To accept the identity theory of truth you would have to accept some such account of facts and states of affairs, which includes the term ‘actual’ being a sort of indexical that applies to only some states of affairs, all of which, however, exist. This theory of states of affairs, which I call the linguistic view, is discussed and rejected in the chapter on facts, Chapter 6, Section 6.3.

While Baldwin restricts himself to the view that it is a “position of some intrinsic interest”,⁴⁶ Julian Dodd and Jeniffer Hornsby credit the theory to Frege and believe that the theory is commendable.⁴⁷ Frege had rejected the correspondence theory of truth because he thought that two things could correspond in the appropriate way only if they were of the same type and were alike in every way, since there cannot be degrees of truth; consequently, the only sort of correspondence that would do as a theory of truth would be complete coincidence, or identity.⁴⁸ Although Baldwin assumed that Frege had rejected the identity theory along with the correspondence theory, Dodd and Hornsby point out that identity theory is not a version of the correspondence theory and that they are alike only in that they are relational. They suggest that, though Frege did not commit himself explicitly to an identity theory of truth, some of the things that he said point to the identity theory, particularly, his statement that a fact is a thought that is true.

Dodd and Hornsby claim that a fact is not an entity whose components are particular objects in the realm of reference, that is, in the spatio-temporal world. That, they say, is the wrong place to look. Propositions, which Frege called thoughts, belong to the third realm, and since facts are

44 Alston, *A Realist Conception of Truth*, p. 38.

45 Baldwin, “The Identity Theory of Truth”, p. 46. Plantinga’s view of possible worlds would work better than Lewis’s.

46 Baldwin, “The Identity Theory of Truth”, p. 35.

47 Dodd and Hornsby, “The Identity Theory of Truth: Reply to Baldwin”.

48 Frege, “Thoughts”, pp. 352–53.

identical with true propositions, facts belong in the third realm as well. Indeed, from what Frege says it appears that facts are nothing other than true propositions and that he proposed no ontological distinction between a true and false proposition.

The only significance the notion of fact has in this context is that a true proposition is called a fact, and perhaps as such explains fact locutions. But for an assertion of identity to be significant, there must be at least two different ways of thinking of the same thing, not just a slight difference in nomenclature. Consequently, it is difficult to see what the Dodd–Hornsby interpretation of Frege amounts to as a theory of truth, unless it is just the deflationary theory of truth under another name. One of its commendable properties, they say, is that “it is a strong candidate for explaining why deflationism about truth should be so attractive as it is, since it acknowledges that truth can indeed be accounted for with minimal resources.”⁴⁹

Appendix 5.1: Answers to Other Objections to Russell’s Theory

1. *Russell’s theory requires a different multiple relation for every different type of fact.* According to Russell’s original theory of belief, a belief about two particulars requires a multiple relation with three terms, while a belief about three particulars requires a multiple relation with four terms, and so on. Formally speaking, then, there is a different account of truth for each different type of fact, though it could be said that there is a class of appropriate multiple relations, all of which have something in common.⁵⁰

According to the modified version of Russell’s theory, believing is not to be understood in terms of a multiple relation that has as its terms the person, the relation, and the particulars that the belief is about. The way believing is understood is shown by the form ‘()Believes–’, which combines with any sort of universal at one end, and a special type of particular, namely, a person, at the other end. According to this analysis, “believing” combines with a universal first and then the combination combines with particulars. The number of particulars that are terms of

49 Dodd and Hornsby, “The Identity Theory of Truth: Reply to Baldwin”, p. 321.

50 Geach, *Mental Acts*, p. 49. Russell admits this as an objection in “The Philosophy of Logical Atomism”, p. 226. See Griffin, “Russell’s Multiple Relation Theory of Belief”, p. 215, for a discussion of criticisms of Russell’s theory.

the relation represented by the form '()Believes R ()()' depends on the valence of the universal R . For this reason, "believing" is the same sort of thing in all cases of predicative belief.

2. In Russell's theory it is not clear what it is for a relation itself, such as R , to be the term of another relation.⁵¹ In general, there is nothing very peculiar about relations being terms of other relations. Once it is admitted that there are such things as universals, it seems at least reasonable to suggest that first-order universals, ones that apply to particulars, can be the terms of second-order universals. For example, there are ratio relations between particulars of one being so many times heavier than another, and then ratio relations of this sort also have ratio relations to each other, and so on indefinitely. Given that it is true to say that there is a universal even when it is not instantiated by particulars, then second-order universals hold between first-order universals even when the first-order universals are not instantiated.

3. The relation "loves" occurs in one way in the belief and in another way in the fact the belief is about. The best that can be said for Russell's original theory is that it leaves unexplained what it is for a person to think of the subordinate relation in an act of believing.⁵² In the modified theory the subordinate relation does not, strictly speaking, occur in the belief, in the technical sense that the relation is not instantiated by a particular. The relation does occur in the object fact if the belief is true, or, on the view that there are no facts, it occurs instantiated by the particulars. For transcendent realism (Platonism) or immanent realism, the relation is the same thing whether it occurs or not.

4. Russell's theory cannot handle "p believes that q perceives that knife a is to the left of book b".⁵³ Consider a situation where p believes that q perceives that knife a is to the left of book b , but where in fact the knife is not to the left of the book so that q cannot perceive it. Russell's original analysis would be a four-place relation Believes(p , q , perceiving, the fact of aRb). Not only is a fact introduced as a term of the relation, there is in the example

51 Geach, *Mental Acts*, p. 50. Cf. A. N. Prior, "The Correspondence Theory of Truth". Russell admits this as an objection in "The Philosophy of Logical Atomism", p. 226.

52 Prior, "The Correspondence Theory of Truth". Russell acknowledges this difficulty in "The Philosophy of Logical Atomism", p. 225.

53 Prior, *Objects of Thought*, pp. 9–10. Cf. Ramsey, "Facts and Propositions", p. 42; Sainsbury also gives a version of this difficulty. *Russell*, p. 65.

no such fact so perception does not occur, although there is clearly an act of believing. The objection is based on the assumption that what is perceived is a fact as a unit, which Russell would have agreed with.

Although this is a challenging example, it is not clear that it is an example of predicative belief. Nevertheless, perhaps something can be done. The example includes two propositional attitudes, ()Believes– and ()Perceives–. What we want from q Perceives Rab is a relation to fill the space marked “–” in ()Believes–. One solution would be to fill the space marked – in ()Believes– by the relation ()Perceives R ()(). The result is ()Believes[()Perceives R ()()], which is a four-place relation that applies to particulars.⁵⁴ Filling in the spaces with the appropriate particulars, we obtain p Believes[q Perceives Rab]. This can be read as something like “ p believes perception of R holding of q with respect to a and b ”, which does not involve a fact as a unit.

5. *Russell’s theory requires the mind to be a particular on the same level as other particulars.* Russell himself abandoned his theory of truth because, under the influence of William James, he no longer believed in a “subject”, or mind, that could be a term of the multiple relation – curiously, he had developed the theory partly as a reaction to James’s pragmatic view of truth.⁵⁵ He had originally presented his theory with one of the terms of the multiple relation being a mind conceived of in a Cartesian fashion, which is particularly clear in his paper “On Knowledge by Acquaintance and Knowledge by Description”. However, in “On the Nature of Truth and Falsehood”, Russell sometimes speaks of a mind and sometimes of a person as performing the act of believing. The modified version of Russell’s theory as presented in this chapter was, however, presented in terms of a person who thought of particulars and believed things of them. Providing it is admitted that there are persons who think of particulars and are capable of judging that they have properties, it does not matter what ontological account is given of the human mind.

6. *As it stands, Russell’s theory applies only to simple beliefs involving a relation and a number of particulars, and it is difficult to see how it could be extended to more complex beliefs.*⁵⁶ Strictly speaking, Russell’s theory, original or modified, is intended to apply only to predicative beliefs, the basic and

54 The square brackets are an attempt to show which universal goes in the “–” empty space, though a two-dimensional diagram would work better.

55 Russell, *My Philosophical Development*, p. 182.

56 Sainsbury, *Russell*.

fundamental beliefs about the world. Any attempt to extend the theory to non-predicative beliefs will result at best in analogous theories. This attempt is discussed in Chapter 8.

7. In a letter to Russell of 1913, Wittgenstein said that he wanted the theory of types to tell him “Mortality is Socrates” is nonsensical, but there is nothing in Russell’s theory of judgement to distinguish $J\{S, \text{Socrates, Mortality, } fx\}$ from $J\{S, \text{Mortality, Socrates, } fx\}$, where fx is the logical form, which appears in the 1913 theory of judgement.⁵⁷ This is Somerville’s interpretation of this objection: “the May criticism of the multiple relation theory concerns the inability of the theory to distinguish meaningful from type-theoretic nonsensical judgements. The ‘exact’ formulation requires that, from a correct analysis of ‘ A judges aRb ’, the proposition ‘ aRb .v. $-aRb$ ’ must follow directly. Several commentators have noted already that this amounts to the condition that, whatever A judges, it be a significant proposition (either true or false).”⁵⁸

The Tractarian account of the logical form, or internal properties, of objects is designed to give a theory of which states of affairs are possible. And under a realist interpretation, particulars and relations have different internal properties and as a result combine in different ways. In this way a number of the grosser impossibilities are excluded, but even so it is not possible to exclude all impossibilities.⁵⁹

Russell could meet this objection by asserting that it is possible to “judge a nonsense”, as Black suggests on his behalf,⁶⁰ Wittgenstein’s objection does seem to rely on the mere assertion that judging nonsense should not be possible. Or he could stipulate that one slot in the multiple relation be reserved for the universal, while other slots be reserved for particulars.⁶¹ Our modified version of Russell’s theory has built into it a type distinction between relations and particulars, and one of the internal properties of the relation plays a role in the formation of a belief. Consequently, this theory does in a way exclude some of the grosser impossibilities, such as allowing a particular to be thought of a relation. But

57 *Letters to Russell, Moore and Keynes*, R. 12. Cf. *Tractatus*, 5.5422. This criticism is discussed in Somerville, “Wittgenstein to Russell”, pp. 185–86.

58 Somerville, “Wittgenstein to Russell”, p. 186.

59 Presumably, determinables as internal properties guarantee determinate exclusion, that a particular cannot have two determinate shapes at the same time, for example. See Newman, *The Physical Basis of Predication*, pp. 64–66.

60 Black, *Companion*, pp. 301–2.

61 One of Russell’s 1913 versions, which included the logical form as a term of the multiple relation, might be able to handle this objection. See *Theory of Knowledge*, p. 113.

it would not be a good idea to exclude all impossibilities, since we do form judgements about some impossible propositions.

8. Sainsbury criticizes Russell's theory because it makes all occurrences of names in belief contexts transparent. Sainsbury claims that Russell's multiple relation can be represented by the sentence form '*p* believes, concerning . . . , that it is ___' and that such a form is referentially transparent. In other words, if the sentence '*p* believes, concerning *a*, that it is *F*' is true, and '*a* = *b*' is true, then '*p* believes, concerning *b*, that it is *F*', where '*a*' and '*b*' are different simple proper names or definite descriptions that refer to the same particular. But it seems fairly clear that '*p* believes concerning *b*, that it is *F*' is not guaranteed, since belief contexts are not generally thought to be referentially transparent.⁶²

Russell himself requires that a person with a predicative belief should be acquainted with the particulars and the relation. It is as though an act of believing is performed in the presence of these items without anything else to intervene, such as sentences or the senses of the components of a sentence. It is conceivable that acquaintance with a particular is such that if you are acquainted with a particular you will recognize all the descriptions that apply to the particular; but even so, you will not recognize all proper names that have been used to refer to it.

Now a person, confronted with a certain sentence, who did not know what some of the components of the sentence referred to, would not know what proposition the sentence expressed. But it does not follow that the person does not believe the proposition expressed by the sentence. In fact, from a Russellian point of view, it could still be said that he believed the proposition expressed by the unrecognized sentence; he would merely fail to recognize that that sentence expressed that proposition.

Russell's original theory of belief and our modified version of his theory of belief have nothing to say about sentences. Naturally, sentences can play a role in a person's believing and coming to believe a proposition, but sentences themselves play no role in this type of theory of belief. Similarly, neither theory has anything to say about the senses of proper names. Both versions are quite consistent with the doctrine that proper names have senses, in the sense that when a person thinks of a particular, that person has to think of it in a certain way; and both theories are consistent with senses of proper names playing a role in a person's believing and coming to believe a proposition. There is no reason why a theory of

62 Sainsbury, *Russell*, pp. 64–65; cf. 225.

the role played by sentences and senses should not be added to Russell's theory.

Nathan Salmon provides such a theory. He explains the two-place belief relation between a person and a proposition in terms of a three-place relation which has as its terms a person, a proposition, and a proposition guise or mode of acquaintance with a proposition.⁶³ Propositions on this view are singular propositions with a Russellian criterion of identity, but with unexplained ontological status, while a proposition guise, or mode of acquaintance with a proposition, is how a person thinks a proposition. Two proposition guises usually differ in how a particular is thought of: in one the particular might be thought of as the morning star, and in another it might be thought of as the evening star. They strongly resemble Fregean thoughts, the difference being that a Fregean thought is supposed to be what is believed, in other words, the content of the belief, rather than a mode of acquaintance with the content of a belief.

The purpose of introducing proposition guises is to account for various types of failure of recognition, such as the one mentioned by Sainsbury in his objection to Russell's theory. Salmon's work shows that such theory can be added to a theory of singular propositions, and the Russellian theory discussed in this work is, after all, merely an ontologically more explicit theory of singular propositions.

Since Salmon reserves the verb 'believes' for the relation between a person and a proposition, he needs a new verb for the triadic relation between a person, a proposition, and a proposition guise. He uses the symbol ' $BEL(A, p, x)$ ', which can be read as A believes p under the guise x . Belief merely concerns the relation of a person to a proposition; BEL , or "believing under", concerns also the thought state of the person, in the Fregean sense of something that can be shared by several people. Each proposition has associated with it a set of proposition guises. And Salmon claims that when a person believes a proposition, there is always a proposition guise under which the proposition is believed, which appears to be an extension of Frege's doctrine that when a person thinks of a particular there is always some way in which the particular is thought of.⁶⁴ A person A may believe a proposition p by believing it under a certain guise x , and A may also be familiar with p by some y and yet not believe p under y . The set of guises of p is divided into those by which A is familiar with p and those by which A is not familiar

63 Salmon, "Reflexivity", pp. 255–59. See also Salmon, *Frege's Puzzle*, chap. 8.

64 See, for example, Gareth Evans, *The Varieties of Reference*, p. 17 and n. 17.

with p . And the set of guises by which A is familiar with p is divided into those under which A believes p and those under which A does not believe p .⁶⁵

One difficulty with Salmon's theory is that he appears to regard the three-place "believing under" relation as primary and the two-place believing relation as explained in terms of the "believing under" relation.

I take the belief relation to be, in effect, the existential generalization of a ternary relation, *BEL*, among believers, propositions and some third type of entity. To believe a proposition p is to adopt an appropriate favourable attitude toward p when taking p in some relevant way. It is to agree to p , or to assent mentally to p , or some such thing, when taking p in a certain way. This is the *BEL* relation.⁶⁶

On the other hand, Salmon does not suggest that a proposition guise is an object of belief or that it plays the role of an intermediary.

When a person thinks about a particular, the particular is what is thought of and the sense is the way the person thinks of the particular, or how the person thinks of the particular. The primary relation is between the person and the particular, and the sense plays a role in that relation, but not the role of an intermediate object of thought. It is not an *objectum quod* but an *objectum quo*. Similarly, Salmon should say that in the case of believing, the primary relation is between the person and the proposition, and that the proposition guise plays a role in that relation, but not the role of an intermediary.

There are also difficulties with a proposition guise as a unit. From a Russellian point of view, when a person thinks a predicative proposition, the thought is directed towards certain particulars, though there is no reason why senses should not play a role in this. But there is no role that a proposition guise could play as a unit, if proposition guises are supposed to be units with a similar significance to propositions themselves. It is difficult in fact to see how a proposition guise could be a unit, except as a collection of senses. A proposition guise is not something that is thought in the way a proposition is thought and therefore is not a unit in the way that a proposition is a unit, and it is difficult to see what other sort of unit it could be. It might be possible to regard a proposition guise as similar to, if not the same thing as, a sentence meaning – it would have to be the sentence meaning of a complete, that is, context-independent, sentence.

65 "Generally when a person believes a proposition under a proposition guise the proposition guise is a function of the believer and some particular sentence of the believer's language." Salmon, "Reflexivity", p. 256.

66 *Ibid.*, p. 255.

9. *Russell's theory leads to the doctrine of singular propositions, but singular propositions clash with the universally accepted Kripke–Putnam doctrine of scientific essentialism.*⁶⁷ Because identity sentences have the form of relational sentences, it is assumed that all identity sentences express relational propositions and that it is the same relation in all identity sentences, namely, the relation of identity, which an object has with itself. This assumption ignores the metaphysically peculiar nature of the purported relation, as well as a small but significant literature about what is said by identity sentences. The issue of what identity sentences say and to what extent what they say can be regarded as necessary is discussed in Chapter 8, Section 8.9.

67 Bealer, "Propositions".

6

The Metaphysics of Facts

6.1 METAPHYSICAL ACCOUNTS OF THE NATURE OF FACTS

There are two general approaches to the nature of facts. The *compositional* approach starts with certain things that could be the components of facts and regards a fact as something formed by putting those things together. The result is fewer facts than on other views, because there are fewer things that could be components of facts, and as a consequence there will be fewer true propositions that are made true by a single fact.¹ The compositional approach makes it plausible and, indeed, likely that facts should be regarded as real units, since having components that are real makes it likely that the compound will be real. The *linguistic view* of facts, on the other hand, starts with certain linguistic expressions and singles out some of these on account of their linguistic form as describing states of affairs, states of affairs being introduced merely as what those expressions describe, with facts being explained merely as states of affairs that obtain. The compositional view of facts was held by Russell, Wittgenstein, and Armstrong and could be called the classical view of facts, though the linguistic view appears to be more common at the moment. Austin was clear that facts existed in the world but otherwise apparently had something nearer a linguistic view of facts.²

- 1 Armstrong says that states of affairs (facts) have constituents but do not have parts, *Universals*, pp. 91–92. My use of the term ‘component’ corresponds to Armstrong’s use of the term ‘constituent’. The term ‘part’ in his later work *A World of States of Affairs* would presumably refer to a mereological part. My use of the term ‘component’ is more general. There are a number of modes of composition whereby a unit is composed of components and mereological composition is only one mode of composition among many.
- 2 Austin, “Unfair to Facts”, p. 112.

There are four possibilities for the ontological status of facts:

1. Facts are real units in the sense of being themselves things with causal powers. Facts would then be particulars rather like ordinary particulars and inhabit the spatio-temporal realm.
2. Facts are real units, not in the sense of being themselves units with causal powers, but because they contribute in some way to the causal powers of other units.³
3. Facts are arbitrary or fictional units and not real in any sense. This how Russell thought of classes.
4. Facts are not units of any sort, but are explained by how fact locutions are used, so that speaking about facts is merely a general way of speaking of how things are in the world.

The first three are consistent with the compositional view of facts, while the last is consistent only with the linguistic view of facts. The last could, however, be adopted by those who deny both the compositional and linguistic view of facts, and who agree that predicative sentences describe how things stand in the world but deny that certain other sentences do, such as disjunctive sentences. In this chapter I argue that the arguments that have been put forward for regarding facts as real units are inadequate.

If a particular *a*, such as Socrates, has a certain property *F*, such as “being snub-nosed”, then this can be expressed by the sentence ‘*Fa*’. According to the ontologies of Russell, the early Wittgenstein, Austin, Grossmann, Armstrong, and others, there is besides Socrates and the property “being snub-nosed” a further entity that is in some way associated with the possession of the property “being snub-nosed” by Socrates. Sometimes it is called a ‘fact’, and sometimes a ‘state of affairs’. In his early writings Russell called them ‘complexes’, but later came to prefer the word ‘fact’. Since Armstrong is the most important recent writer on these entities I should have liked to call them ‘states of affairs’ in deference to him, but the role that Russell and the early Wittgenstein have played in this work makes it more consistent to call them ‘facts’. There is also a tradition among recent writers of distinguishing between facts and states of affairs, where a fact is a state of affairs that obtains. Therefore, I call them states of affairs only when discussing Armstrong.

There is also some variation in how a fact is expressed linguistically. Some people speak of the fact of “*a* being *F*” and the fact of “Socrates

3 See Chapter 2, Section 2.4. Possibility (1) corresponds to Frege’s term ‘real’; but possibility (2) does not correspond to Frege’s term ‘objective’, because Frege’s objective things are causally irrelevant things that occupy the third realm.

being snub-nosed”, while others speak of the fact of “*a*’s being *F*” and the fact of “Socrates’s being snub-nosed”. Russell speaks of the complex object “knife-to-left-of-book”, but also of the complex object “*A*’s love for *B*” and the complex event “Charles’s I’s death on the scaffold”.⁴ Grossmann speaks simply of the fact *A* is green.

From a grammatical point of view, the gerundial construction, namely, “*a*’s being *F*”, is preferable; and since what we are alluding to is the possession of the property *F* by the particular *a*, the possessive case appears to be required. The gerund has the effect of making a fact an act of a particular, something a particular does, and therefore something analogous to a case of possession. But the expression ‘*a*’s being *F*’ is analogous to ‘*a*’s hat’, where the expression ‘*a*’s hat’ refers to a hat, one of *a*’s possessions. By analogy, ‘*a*’s being *F*’ should refer to the act of possessing *F*, so that *a* itself would not be a component of what is referred to, though unlike *a*’s hat, the act of possessing *F* could not exist without *a*. However, believers in facts want the particular *a* to be a component of the fact of “*a*’s being *F*”.

Another difficulty with the gerund is that in relational facts it singles out one particular as the subject. This is exactly what is required in a fact like “*a*’s loving *b*”, where one person could be the active doer and the other the passive, and perhaps unwitting or reluctant, recipient. It is also required in some facts with three-place relations such as “*a*’s being between *b* and *c*”, where it is important to single out the particular *a* as the subject that the fact principally concerns. But where the relation is symmetric it is important not to single out one particular as the subject. For example, the fact of “Liss’s being 50 miles from London” is exactly the same fact as the fact of “London’s being 50 miles from Liss”; the gerundial construction is misleading here.

The other common way of expressing a fact, ‘*a* being *F*’, without the use of the possessive case, is called by the Fowlers a fused participle.⁵ Although they were against it, it is common in ordinary speech and has since had its theoretical supporters, for whom it is possible that syntax is guided by philosophical considerations.⁶ Perhaps it is easier to understand the particular *a* as a component of something expressed by ‘*a* being *F*’; and perhaps ‘London being 50 miles from Liss’ could be regarded as not picking out London as the subject in quite the way the gerundial

4 Russell, “On the Nature of Truth and Falsehood”, p. 157.

5 Fowler and Fowler, *The King’s English*.

6 Cf. Quirk and Greenbaum, *A Concise Grammar of Contemporary English*.

construction does.⁷ Nevertheless, I follow the major writers in using the gerundial construction. Grammar is not particularly significant here because it offers very little guidance to the nature of facts, at least for those whose view of facts is essentially metaphysical.

Armstrong introduces his states of affairs in *Nominalism and Realism*, claiming that they are “not too dissimilar from Wittgenstein’s facts”.⁸ On p. 80 he says:

I do not think that the recognition of states of affairs involves introducing a new entity. At any rate, it seems misleading to say that there are particulars, universals and states of affairs. For it is of the essence of particulars and universals that they involve, and are only found in, states of affairs.

Although a state of affairs is clearly not something distinct from its components in the sense that it could be presented separately from its components, states of affairs do represent a new type of thing, and it appears from Armstrong’s writings that they are supposed to be real on account of being causally significant. In *A World of States of Affairs*, universals are said to be states of affairs types: “The universal is a gutted state of affairs; it is everything that is left in the state of affairs after the particular particulars involved in the state of affairs have been abstracted away in thought.”⁹ This conception of universals is said to bring out the dependence of universals upon states of affairs. Indeed, universals and states of affairs appear to be notions that are explained in terms of one another:¹⁰ “The instantiation of universals by particulars is just the state of affairs itself.”¹¹ “It has been argued that the instantiation of a universal is not something different from the states of affairs themselves.”¹² It is as though the act of a particular in possessing a property is regarded as an entity.

Both Russell and Armstrong regard facts as particulars. For Russell, everything is either a particular or a universal, and so complexes (facts) are particulars, presumably because they could not be universals; for Armstrong states of affairs (facts) are non-repeatable and, consequently,

7 David Lewis suggests the form ‘they (London and Liss) are 50 miles apart’ for the sentence, so that the fact would be described by ‘they (London and Liss)’s being 50 miles apart’ or ‘they (London and Liss) being 50 miles apart’.

8 Armstrong, *Nominalism and Realism*, pp. 113–14.

9 Armstrong, *A World of States of Affairs*, pp. 28–29. Note his Lockean notion of abstraction.

10 Cf. *ibid.*, p. 29.

11 *Ibid.*, p. 119.

12 *Ibid.*, p. 127.

they are particulars.¹³ The category of particulars is therefore divided into two, ordinary or concrete particulars and facts – and if there were tropes it would be divided into three categories. Another possibility would be to regard facts as a category of their own in addition to the categories of particular and universal, which would be a plausible interpretation of the *Tractatus*, where facts and objects represent categories distinct enough that it seems unlikely that facts and one kind of object, namely, particulars, should fall under the same more general category. Facts and objects represent different categories because facts are related to whole sentences in a way objects are not.

The view that we are discussing is the general thesis that facts are real units. Now, facts as real units cannot be had for free; there are difficulties with the very idea that facts are units, let alone real units. To show that they are real requires work, as Armstrong for one clearly recognizes.

If facts are to be regarded as real units, then, since they would have real units as components, it would be reasonable to suppose that they have universals associated with them. The universals that apply to facts would be ones that have to do with their internal structure and their relations with other facts, of which causal relations could be an example. It is also reasonable to suppose that real units that have other real units as components have structure. If a two-place relation can be represented by ' $R(\quad) (\quad)$ ', where the empty places are to be filled by proper names that refer to particulars, then by analogy the structure of the corresponding relational fact can be represented by ' $\quad(\quad)$ ', where the empty square brackets are to be filled by a predicate that refers to a relational universal. The structure and components of facts are the basis for their being similar to each other and for their being grouped into kinds. For example, the two facts " a 's being F " and " b 's being G " have different components but the same structure, namely, that of a single particular possessing a monadic property. The facts would be even more alike if a and b were similar particulars and F and G were similar monadic properties; for then the similar structure would be that of a particular of a certain type possessing a monadic property of a certain type.

It would be reasonable then to suppose that ' $\quad(\quad)$ ' refers to a universal, also a real thing. However, though there is apparently no resistance to regarding relations between facts, causal relations, for example,

13 Russell, "Knowledge by Acquaintance and Knowledge by Description", p. 213; Armstrong, "Classes Are States of Affairs", p. 194, and *A World of States of Affairs*, p. 126. Perhaps facts are formally, not really distinct from their constituents.

as universals, there is, of course, considerable resistance to regarding the structure of a fact as a universal, based on a well-founded fear of Bradleian regresses. Concerning the arrangement of the components in a fact, Armstrong says, “Arrangement of constituents is not a further constituent, in particular it is not a constituent relation.”¹⁴ There is a sense in which everyone could agree with him. In the same way that the arrangement of the physical parts of a material object is not a further physical part of the material object, so also the arrangement of universal and particulars in a fact is not another component of the fact. But this analogy carries with it the principal difficulty. It could be argued that in the same way that the relation between the parts of a material object, though not a part, is nevertheless a real universal, so also the arrangement of the components of a fact, though not another component, is nevertheless a real something. The sort of reasoning that led to relations being regarded as universals should lead to the structures of facts being regarded as another sort of universal. In the same way that facts represent a new order of particulars, so also would the structures of facts represent a corresponding new order of universals, in addition to ordinary particulars and universals.¹⁵ Consequently, a claim that the structures of facts are not universals would, according to this line of reasoning, merely serve to undermine the claim that facts are real units.

There are a number of accounts of how facts are put together, each of which tries to avoid reifying the structure of a fact: there is the nominalist account, Armstrong’s “Fregean” account, the Iowan account, and Olson’s holistic account, detailed discussion of which is deferred to Section 6.4. To describe these accounts, let us make a distinction between the components of a fact, namely, the particulars and the universal, and the *way* that the components are connected together or are arranged to form a fact. The components of a fact will be real things, while a *way* would not be a real thing nor a thing, entity, or unit of any kind. I suspect that a distinction of this sort, made at some point in the discussion, is inevitable when facts are regarded as real units. Remember that Wittgenstein defined the structure of a Tractarian state of affairs as the determinate way in which objects hang together in a state of affairs (2.032). Clearly, having no desire to reify the

14 “Classes Are States of Affairs”, p. 192.

15 In *Nominalism and Realism*, Armstrong first defends universals as real but immanent, and then later explains that he wants to regard universals as abstractions from states of affairs. So, states of affairs are more concrete than universals. Later, he suggested that it is only first-order states of affairs that are non-abstract. See Bacon et al., *Ontology, Causality, and Mind*, p. 231.

structure of a fact, he regarded the structure of a fact as something that could only be *shown*, not spoken of directly.

For the nominalist, that is, Tractarian nominalist, account of facts, the components of a fact are all particulars, and the relation between the particulars is the *way* they hang together.¹⁶ In effect, the reification of universals is avoided by regarding relations as ways. In a letter to Russell of 1913 Wittgenstein says something that makes him sound like a Tractarian nominalist: “I have changed my views on ‘atomic’ complexes. I now think that qualities relations (like love) etc. are all copulae!” However, in the rest of the letter he does not sound like a nominalist.¹⁷

For Armstrong, particulars and universals are the only components that states of affairs or facts have. Although he speaks of a universal as a state of affairs type or gutted universal, requiring only the addition of a particular to form a state of affairs, he is also happy to use the Fregean term ‘unsaturated’ to speak of universals, and to employ the Fregean idea that particular and universal are brought together “by inserting the particulars in the unsaturated structure”.¹⁸ His view of facts can, therefore, be called a Fregean account, despite the fact that Frege himself did not discuss the composition of facts, though Olson thinks he did.

Since the structure of a fact is not a further component, it would be natural to avoid reifying its structure by regarding it as a *way*, the way in which the components hang together, as Wittgenstein does in the *Tractatus* according to the realist interpretation. But Armstrong is not happy to leave matters there. He wants to identify the way in which universal and particulars hang together with the state of affairs itself, and thereby in a sense does reify it. He says, “In particular, there is no call to bind together the constituents of the state of affairs by anything beyond the state of affairs itself. The instantiation of universals by particulars is just the state of affairs itself.”¹⁹ And in a discussion of different states of affairs with the same components, he says, “The ‘relation’ or ‘tie’ between the constituents, the two different ‘relations’ or ‘ties’ that in this case are associated with the two states of affairs, are not anything additional to the two states of affairs.”²⁰

Given that we have an understanding of a fact as a particular with a universal and particulars as components, it can be plausibly claimed that

16 See Seargent, *Plurality and Continuity*, who regards universals as ways and appears to be a kind of nominalist. For a discussion, see Armstrong, *A World of States of Affairs*, p. 30.

17 Wittgenstein, *Letters to Russell, Moore and Keynes*, R. 9.

18 Armstrong, *A World of States of Affairs*, p. 29.

19 *Ibid.*, 119.

20 *Ibid.*, 118.

we have an informal understanding of the way in which the components of a fact are brought together. But there is something implausible about the claim that the way the components are brought together is identical with a fact, since they seem to be two different categories of thing. That it should be only partially identical (in Armstrong's sense) with a fact would require more explanation, since there are a number of ways in which things can be partially identical, and partial identity is itself a questionable notion.²¹ And, moreover, the notion of instantiation appears to be one that we are unable to do without, because it is not possible to replace completely talk about instantiation with talk about facts as units.

Previously, I suggested that if a fact were a real unit with real units as components, then it could be argued that the structure of the fact would itself be a universal, which would explain the general way in which the components are brought together. The structure of a relational fact, [] () (), would be the general way in which the components are related, and the specific way, or mode of composition, would include both the general way and which particular goes in which slot of the fact's structure.²² In this way the notion of a fact as a particular with structure could be used to explain the way in which the components of a fact fit together. It is difficult to see how Armstrong's view of the nature of facts could explain these things without reference to the structure of a fact.

Armstrong's account identifies the structure of a fact with the fact itself, but also regards the universal as unsaturated and so is a Fregean account. Olson's view of facts is similar to Armstrong's in identifying the structure of a fact with the fact itself, but he does not have a Fregean view of universals as unsaturated things. Other Fregean accounts of facts are possible, such as that provided by the realist interpretation of the *Tractatus*, in which the structure of a fact is just a *way*. The Iowan account of facts, at least in the version presented recently by Grossmann, has the peculiarity that it gives a Fregean account of relational facts but regards the structure of a monadic fact as a real unit. A propositional function, represented by the expression ' is green', is a complex entity, a structure, that contains the property itself and something else called the 'nexus of

21 For the notion of partial identity, see *A World of States of Affairs*, pp. 17–18.

22 Russell, in *Theory of Knowledge*, explained the way in which the components of a fact were brought together to form a fact in terms of the logical form of the fact and the "position relations" that the particulars had with the fact. One of the difficulties with Russell's approach was that he was not clear about the status of the logical form. See Chapter 4, Section 4.2.

exemplification'.²³ Grossmann says that Frege and Russell's identification of monadic propositional functions with properties cannot be right, since "The property which A has, is the property green. A has this color, it does not have the entity is green." Grossmann believes that Bradley's argument has shown that only relations can relate without the need of an intermediary: relations are the glue that binds. In monadic predication that relation or glue, which binds particular to property, is the nexus of exemplification, which should not be regarded as a way.²⁴ Consequently, a monadic fact has three components: a particular, a universal, and the nexus of exemplification, with nothing further being needed to bind these components together.²⁵ In the case of relational facts, the nexus is not required, since nothing further is needed to bind a relation to its terms; however, it seems likely that the notion of a way would be needed to explain the distinction between *Rab* and *Rba*.

In Chapter 3 a different account of predication was developed that did not regard facts as units, and did not make use of the notion of a way as the structure of a fact, though it did depend upon a Fregean account of the nature of properties and relations. According to that view, when a relation is instantiated by particulars, neither the relation nor the particulars need be the components of anything, so the specific issue of how the components fit together to form a fact does not arise. A relation is both an entity and in one sense the *way* in which the particulars are related. In another sense the general way in which the relation and particulars are brought together is the mode of predication, which was regarded as an internal property of the relation. The specific way in which the particulars are related was accounted for by both the mode of predication and by the insertion of different particulars in different slots in the relation itself. Since this theory explains instantiation as well as, if not better than, any of these accounts of the composition of facts, I see no reason from considerations concerning instantiation for regarding facts as real units, though it may still be possible to regard them as fictional units.

23 Grossmann, *The Categorical Structure of the World*, p. 149. For the notion of structure, see Grossmann, "Structures, Functions, and Forms". Grossmann's position is similar in some ways to that of Wiggins, discussed in Chapter 4, Section 4.4. Gustav Bergmann thought that all facts required a nexus of exemplification together with a circumstance that the nexus binds the universal and the particulars.

24 Grossmann, *Ontological Reduction*, pp. 143–44 and 182–83. In my view, one of the insights of Frege and Russell was to see that the unsaturatedness of monadic properties and the unsaturatedness of relations was of the same type.

25 For a comment on relations and exemplification, see Grossmann, *The Categorical Structure of the World*, p. 169.

Facts seem ideally suited to be truth makers. To every true predicative sentence there is a fact, and to every fact there are or there could be predicative sentences that are true in virtue of the existence of that fact. The truth of a sentence is therefore explained by the existence of a fact. While the correspondence theory of truth is not always phrased in terms of the correspondence between a sentence and an entity in the world, the existence of facts would certainly give rise to such a correspondence and it would be natural to explain truth in terms of it. It would be a correspondence between a sentence, which is part of language, and a fact, which is something that exists objectively in the world.

There are, however, reasons to be suspicious of facts as truth makers. For a start, the correspondence appears contrived and artificial. There seems to be no doubt that a predicative sentence and a fact can correspond, since a fact is something constructed to do just that.²⁶ The notion of a fact can be introduced by taking the true predicative sentence '*a* is *F*' and forming from it the expression '*a*'s being *F*' and claiming that this describes a certain unit called a fact, from which it follows that whenever the sentence '*a* is *F*' is true, the fact described by '*a*'s being *F*' exists.²⁷ But it seems that this simple transformation that models facts on sentences does not add anything by way of explanation, particularly in the absence of a satisfactory metaphysical account of facts. Strawson expresses similar reservations about the relation between statements and facts: "Of course, statements and facts fit. They were made for each other. If you prize the statements off the world you prize the facts off too; but the world would be none the poorer."²⁸

An acceptable answer to what makes sentences true must be based on an acceptable answer to the question of what the truth of sentences consists in. Facts as real units are plausible as truth makers for sentences only if it is the case that truth consists in some sort of correspondence between the two real units. There is, of course, a certain amount of ambiguity associated with the notion of correspondence. Most people will agree

26 Those that believe in facts, such as Evan Fales, would say that a sentence is constructed to correspond to a fact; those who are suspicious of facts would claim that it is not obvious that we are aware of facts and how they are constructed so that we could construct sentences to correspond to them.

27 According to the linguistic view of facts, this can be done for all true predicative sentences; but according to the compositional view of facts (of Russell and Armstrong), it can only be done for some true sentences.

28 Strawson, "Truth", p. 39.

that truth is a matter of correspondence between how things are and how we might say that they are, but that does not tell us what truth consists in. There is a partial sort of correspondence between a sentence and the fact that makes it true in that the components correspond: ‘*a*’ corresponds to *a* and ‘*F*’ corresponds to *F*. But this is not enough for the sentence to be true. Being units with components, sentences and facts also have structure. For the sentence to be true, there must also be some sort of relation between the arrangement of the components of the sentence within the sentence and the arrangement of the components of the fact within the fact; by no means an easy issue, as the discussion of Chapter 3 shows.

There are two sorts of correspondence theory of truth: those that require that the structure of the sentence be the same as, or similar to, the structure of the fact – correspondence as congruence or isomorphism – and those that require that the structure of the sentence merely determine the structure of the fact – correspondence as correlation.²⁹ For the correspondence-as-congruence version, a fact and sentence must be the same sort of thing and facts must be units. But we have seen that congruence accounts must be rejected. Where there is only correlation, it is possible for the structure of the sentence and the structure of the corresponding fact to be different types of thing, and there is no obvious need for there to be facts as units.³⁰

In *A World of States of Affairs*, Armstrong’s main argument for the existence of states of affairs is the truth maker argument – “perhaps the fundamental argument of the book”.

Let it be the case that the particular *a* instances the universal *F*. *a* is *F*. Must there not be something about the world that makes it to be the case, that serves as an ontological ground, for this truth? (Making to be the case here, of course, is not causal making to be the case.) The truthmaker or ground cannot be *a*, at any rate if *a* is taken as the thin particular, the particular apart from its properties. Can it be the pair of *a* and *F*? This is getting a little warmer. But what appears to be the decisive argument against this suggestion is that it is possible that *a* and *F* should both exist and yet *a* not be *F*. *F* may be instanced elsewhere.³¹

29 Kirkham, *Theories of Truth*, chap. 4.

30 Cf. Mulligan et al., “Truthmakers”, pp. 296–97. They claim that what makes it true that Socrates died is Socrates’ death, where the death in question is not a universal death but the particular death that Socrates died, which is what particularists call a trope. For further discussion of this issue, see John Fox, “Truthmaker”.

31 Armstrong, *A World of States of Affairs*, p. 115.

On the next page he says, “In this state of affairs (fact, circumstance) *a* and *F* are brought together.”³²

There appear to be two arguments here. He argues, first, that whatever makes it true that *a* is *F* also explains the difference between the universal *F* and the particular *a* occurring separately and *F* occurring instantiated by *a*, and what explains this difference happens to be a certain unit, namely, a state of affairs.³³ And, secondly, he may also be arguing generally that the truth that *a* is *F* requires something to make it true, and what makes it true must be some unit in the world. I consider only the first argument, since I have already, in effect, considered the second.

Clearly, the particular and universal occurring separately cannot make the sentence true, even though it would be possible to consider them as a unit of some sort, such as a set. Only if the particular and universal are bound together, and bound together in the specific way known as ‘instantiation’, can they make it true. But there is no general reason to suppose that all groups of things that are bound together in some way form a unit, which is a principle that Armstrong’s argument could be invoking here. For example, not all pairs of particulars bound together by a real relation form a whole, in the sense of another particular – some do, some do not.³⁴

Any two entities can be regarded as forming a set, and it might be thought that if two things formed a set, then that itself amounted to their being bound together in some way. If it did, it would be a case of two things forming a unit implying that they are bound together in some way, not a case of two things being bound together in some way implying that they form a unit, the principle Armstrong is apparently using in this argument.³⁵ However, the way that a particular and a universal are bound together in the case of instantiation is stronger than the way things must be bound together for there to be a set.

32 Ibid., p. 116.

33 With non-transferable tropes, that is, ones that belong necessarily to a certain particular and cannot belong to another: “there is no need to introduce states of affairs as anything additional to the particular and its property. . . . The property will cling by necessity to its place in the world . . .” (*A World of States of Affairs*, p. 117).

34 A real relation between two particulars does not imply that they form a naturally given unit, though it might be stipulated that they form a fictional or arbitrary unit. A real relation is one that is causally significant or contributes to the causal significance of something else.

35 Some things are said to form a set because they resemble each other, but other things form a set despite the fact that there are no resemblances between them whatsoever. Since both types of sets are equally sets and whatever makes them a set is the same in both cases, what makes things a set is not resemblance, not any other type of relation.

The reason that Armstrong concludes that the instantiation of a universal by a particular involves the presence of a unit, namely, a state of affairs, is because of the way he understands instantiation: he identifies instantiation with the state of affairs itself.³⁶ Armstrong says, “In particular, there is no call to bind together the constituents of the state of affairs by anything beyond the state of affairs itself.” Armstrong thinks he has an explanation of instantiation in terms of states of affairs as units, an explanation motivated, presumably, by the aim of avoiding instantiation being a relation. Unfortunately, it is not clear from this how a state of affairs does the binding. It does seem, however, that if you are not prepared to identify instantiation with the state of affairs itself, you will not follow Armstrong in inferring that instantiation requires the presence of a certain unit.

Despite the fact that I do not really know how the state of affairs itself could bind together a particular and a universal, I do have a suggestion of how it might work. I subject the suggestion to criticism, of course, so it should be borne in mind that what I criticize is only my suggested interpretation. There is a similarity between Armstrong’s conception of how a state of affairs binds particular and universal together and the way in which a set binds its members together, or, indeed, how an aggregate binds its parts together. In the case of a set, unity is imposed on the members from the outside rather than by a relation between them, to speak metaphorically. It could be said that the members are bound together by being *bracketed* together to form a unit. I suggest that the idea behind a state of affairs binding its components together without help from anything else is similar, in that the components are also bracketed together from the outside, so to speak, using the same metaphor.

It would be useful to have an account of all the different possible modes of composition, the sort of account that Russell attempted in the *Principles*.³⁷ The most obvious mode of composition is when particulars are related to each other in such a way as to form a whole, another particular. Another important class of modes of composition is when things are collected together in some way to form a unit, such as a set, ordered set, or aggregate. Perhaps, then, there are two general conceptions of how things can be combined to form a unit. Some things constitute a unit on account of relations between them – for a real unit, real relations – though not all relations between things will result in their constituting

36 Armstrong, *A World of States of Affairs*, p. 119.

37 Russell, *Principles*, chap. 16.

a unit; and some things constitute a unit not on account of relations between components but on account of components being “bracketed together” to form a unit. The obscure phrase ‘bracketed together’ implies that the way the things form a unit is not the result of relations between them. For example, three things could be bracketed together to form an ordinary set or they could be bracketed together to form an ordered set. In one case the bracketing together is represented by ‘{ , , }’, and in the other case the bracketing together is represented by ‘⟨ , , ⟩’. It could be said of units such as sets that the bringing together of the members to form a set is nothing other than the set itself. Or, if the bringing together of things to form a set is spoken of as a relation between them, then that relation is nothing other than the set itself. And, of course, Armstrong does say: “The instantiation of universals by particulars is just the state of affairs itself.”³⁸ Statements of this type can be used to characterize the general notion of bracketing things together to form a unit.

Although it is not my aim here to explain the nature of sets, I think that this view of sets makes a certain amount of sense and it is a way of understanding sets that closely parallels Armstrong’s understanding of states of affairs. I am not suggesting that Armstrong regards a state of affairs as a kind of set, or that they should be regarded as sets; what I am suggesting is that there is a certain analogy. My suggestion is that the combination of particular and universal to form a state of affairs appears to be a species of bracketing together, represented by ‘[]()()’ rather than ‘{ , , }’ or ‘⟨ , , ⟩’.³⁹

The principal virtue of understanding instantiation as a species of bracketing together is that it avoids Bradleian regresses. There is no relation of instantiation between universal and particular, at least not a relation in the ordinary sense; what there is is a specific type of bracketing together of universal and particular, which could be understood as a sort of relation, a relation that is identified with the state of affairs itself and that needs no further glue to attach it. The main difficulty with understanding

38 Armstrong, *A World of States of Affairs*, p. 119.

39 The idea of a fact shell is not one that fact theorists use, as far as I know, but it is justified by the way that they talk about a fact as a sort of whole that, in this case, binds three things together, and in which the two particulars can be inserted in different ways. But perhaps the fact theorist would insist on the absolute difference of $[R](a)(b)$ and $[R](b)(a)$. But that is not really possible, since these two facts have something in common, their three components, for example. The only difference between $[R](a)(b)$ and $[R](b)(a)$ is the order of the two particulars. Whatever else goes to make up a fact, the external architecture of $[R](a)(b)$ must be the same as the external architecture of $[R](b)(a)$.

instantiation as a species of bracketing together is that bracketing together appears to result in too weak a form of union to account for instantiation, particularly for immanent realism where the universal is located at the particular – there appears to be more to the union, though perhaps bracketing together would make more sense for Platonism about universals. It also appears to be too weak to make states of affairs the real units that Armstrong takes them to be.

For the immanent realist, the particular and the universal are actually brought together, and so let us be brave for the moment and call instantiation a type of relation – not a real relation, of course. Now, there is a categorical distinction between something relational and a unit with components, and to identify a unit with components with a relation, even if there is some sort of connection, is a mistake and obscure. There are units that entail relations between their components, and there are relations that entail that their terms form units. But entailment is one thing and identity another. And in the case of a set with disparate members, although its members can be regarded as bracketed together to form a unit, there is no obvious naturally given sense in which there is a relation between them on account of their forming a set. And I claim that in general there are no relations between things that are bracketed together merely as a consequence of their being bracketed together. I also claim that there is something irreducibly relational about instantiation in the sense that it is the bringing together into one place of two different kinds of entities, one saturated and one unsaturated, so that they occur together. It is not a real relation, because it is a bringing together of something saturated and something unsaturated. And it is not a relation that needs further relations for it to do its work, again because it is a bringing together of something saturated and something unsaturated. The two things brought together belong to different categories and the category distinction is such that nothing further is needed to combine them. Instantiation is *sui generis* and fundamental, and something in terms of which other things are to be explained.

6.3 THE LINGUISTIC VIEW OF FACTS AND STATES OF AFFAIRS

The linguistic view of facts starts with certain linguistic expressions and singles out some as describing states of affairs, states of affairs being introduced merely as what those expressions describe, and then facts are

explained as states of affairs that obtain.⁴⁰ Perhaps the linguistic view of facts is widely held, for Kirkham says, “W. V. O. Quine, Donald Davidson, A. N. Prior, Arthur Pap, D. J. O’Connor, and Keith Lehrer have all made the point that the coordination of truth bearer to the obtaining state of affairs is a necessary condition for truth.”⁴¹ Roderick Chisholm also holds this view, and is one of its better-known representatives, but we must turn to Jonathan Bennett for the detailed linguistic analysis.

Bennett, following Zeno Vendler, distinguishes between perfect nominals, which generally describe events, and imperfect nominals, which usually describe facts.⁴² Perfect nominals are usually derived nominals, for example, ‘Quisling’s betrayal of Norway’, and though the noun ‘betrayal’ in this example is derived from a verb, it is in every respect a true noun. They also include a type of gerundial nominal, for example, ‘Quisling’s betraying of Norway’, but Bennett ignores this type. Perfect nominals can be used for talking about located particulars, such as events and states, since they take articles, have plural forms, and take attributive adjectives. They can also function as sortals, and any event name can be turned into a general sortal by deleting some of the descriptive details. There are also, however, event sortals that are not formed from verbs.

Imperfect nominals include gerundial nominals, such as ‘Quisling’s betraying Norway’, and sentence nominals, such as ‘the fact that there are warm superconductors’, but these two forms are interchangeable.⁴³ Bennett quotes Vendler as saying that a gerundial nominal “has a verb alive and kicking inside it” to support the view that gerundial nominals are not in every respect like nouns. Imperfect nominals cannot, however, be used to form sortals. They do not behave syntactically as though they were applicable to located particulars: they do not take articles or attributive adjectives, they do not have plural forms, and so on. Their semantic behaviour is wrong, too: they do not go comfortably into contexts about being observed, occurring at stated times or lasting for stated periods,

40 In the *Principles* of 1903, Russell identifies a proposition with a complex, which accounts fairly well for true belief, but the reader is left wondering about false belief. In the 1904 discussion of Meinong, he identifies Meinong’s *Objective* with a proposition and appears to explain false belief in terms of a relation with a state of affairs. See “Meinong’s Theory of Complexes and Assumptions”. Strawson claims that “A situation or state of affairs is, roughly, a set of facts, not a set of things.” “Truth”, p. 39.

41 Kirkham, *Theories of Truth*, p. 165.

42 Bennett, *Events and Their Names*, pp. 4–6.

43 *Ibid.*, p. 7.

and so on.⁴⁴ From these considerations Bennett concludes that imperfect nominals name states of affairs and do not pertain to events.

One of the differences between events and facts is that events can have names that differ in generality, as can be seen from the identity sentence ‘his journey to Calais is the same as his cross-Channel swim’, which is not true for facts, as can be seen from the sentence, ‘his journeying to Calais is not the same as his swimming the Channel’.⁴⁵ For events there are degrees of specification, something that Davidson has drawn our attention to. But for facts what is said is what you get.⁴⁶

Bennett stresses that he does not regard events as fundamental entities; he describes them as supervenient entities, “meaning that all the truths about them are logically entailed by and explained or made true by truths that do not involve the event concept.”⁴⁷ He is less clear about the nature of facts, but his book is about events, not facts. At one point he says that he has no need to distinguish between facts and true propositions, and later when he formulates principles for when two sentences express the same proposition and when two *true* sentences express the same fact, it becomes evident that he sees little or no difference between facts and true propositions. They have the same criterion of identity, at any rate.⁴⁸

Chisholm, that is, Chisholm of the seventies as Loux calls him, had a similar theory of facts and states of affairs and was prepared to say something about the ontology of facts.⁴⁹ He defines a state of affairs as follows:

p is a state of affairs = Df *p* is necessarily such that (i) it is possible that there is someone who conceives it, (ii) whoever conceives it conceives something which is possibly such that it obtains and (iii) it is not a property or a relation.⁵⁰

44 Ibid. “The very syntax of imperfect nominals forbids them to function as sortals, because they cannot be pluralized or prefixed with articles in such expressions as ‘a stealing the bicycle’, ‘(betraying Norway)s’, . . .” (*Events and Their Names*, p. 8).

45 Ibid., pp. 10–11. “That is, any difference in content between two such fact names – corresponding to any failure of equivalence between the parent sentences – makes them the names of different facts.” (p. 9) “That is because fact names co-refer only if they are strictly equivalent, whereas co-reference of event names is less demanding.” (p. 24)

46 Others do not make a categorical distinction between facts and events. For Barry Taylor, an event is a species of fact where a fact is a state of affairs that obtains. *Modes of Occurrence*, pp. 28–29. For John Wisdom, facts are instantaneous, while events occupy a period of time. A fact that is “complete, particular and specific” is an infinitely thin temporal slice of an event. *Problems of Mind and Matter*, pp. 31–32.

47 Bennett, *Events and Their Names*, p. 12; see also *ibid.*, chap. 6.

48 Ibid., pp. 7 and 37.

49 See Loux, *Metaphysics*, pp. 157–63. For Chisholm’s recent misgivings, see “States and Events”, in *On Metaphysics*.

50 Chisholm, *The First Person*, p. 9; cf. Chisholm, *Theory of Knowledge*, p. 88.

What distinguishes states of affairs is not stated here, but the obvious way of characterizing the difference is to say that properties and relations correspond to predicates, whereas it is possible for states of affairs to correspond to whole sentences.

Chisholm rejects the idea that states of affairs are merely possible entities. Indeed he rejects the very idea that

there *are* certain things that are merely possible and not actual. States of affairs – whether or not they obtain and whether or not they are self-consistent – are not ‘merely possible entities’; like everything else, they exist.⁵¹

From the appendix to Chisholm’s book devoted to the ontology of states of affairs it appears that there are states of affairs corresponding to all different types of the compound sentences, such as conjunctive sentences and disjunctive sentences, clearly warranting description as a linguistic account of states of affairs. And he explains “propositions as being those states of affairs which are necessarily such that they are invariable in their truth value.”⁵² Finally, he discusses possible worlds, which he prefers to regard as just “worlds”, all of which exist in some sense but only one of which obtains.⁵³ Unfortunately, he defines a world in terms of states of affairs, so that there is no explanation here of the nature of states of affairs; we are merely introduced to another type of entity for which there is a distinction between existing and obtaining.

Although Chisholm presents states of affairs as ontologically primitive, there are two obvious ways of understanding the linguistic view of states of affairs in terms of more traditional ontological categories. A linguistic state of affairs either could be a fact in a possible world, as David Lewis understands possible worlds, or could be a Platonic entity, following Plantinga, who understands states of affairs as Platonic entities and then explains a possible world as a type of state of affairs. States of affairs as Platonic entities would in fact suit Chisholm very well, as it appears from his account that states of affairs are similar sorts of things to properties and relations.

Both views locate non-obtaining states of affairs somewhere other than in the space-time realm; and for both views the components of non-obtaining states of affairs have to be proxies of some sort, either trans-world counterparts or Platonic heaven counterparts of things in the

51 Chisholm, *The First Person*, pp. 9–10.

52 *Ibid.*, p. 126. Cf. Chisholm, “Events and Propositions”.

53 Chisholm, *The First Person*, p. 129.

space-time realm. In the case of the possible worlds interpretation, some facts, that is, obtaining states of affairs, would be the same things as compositional facts, with particulars, properties, and relations as components, since in the actual world there is no need for proxies.⁵⁴ However, the difficulty with this natural identification is that the linguistic approach differs fundamentally from the compositional approach in that it posits a fact for every true sentence, and if linguistic facts were the same as compositional facts in some cases, it would be far from clear what account could be given of the additional facts required on the linguistic view. There are also, of course, well-known difficulties associated with possible worlds as understood by David Lewis.⁵⁵

If the possible worlds interpretation of the linguistic view can be ruled out as implausible, this leaves the Platonic entities interpretation as the most suitable way of explaining the linguistic view of states of affairs, and Chisholm's states-of-affairs-as-primitive-entities view does at least suggest it. According to the Platonic entities interpretation of the linguistic view, both facts and states of affairs must be equally Platonic entities with Platonic counterparts as components. For facts cannot have the ordinary particulars and relations of the space-time world as components on this view, since facts and states of affairs being the same type of thing, species of the same genus, must have components of the same type, and the Platonic counterparts, whatever they may be, are not the same sort of thing as the things in the space-time world that they are counterparts of. This is in contrast to possible-worlds counterparts, which as understood by Lewis are the same type of thing as the things they are counterparts of, though implausible enough in themselves.

One of the difficulties with the interpretation of the linguistic view that locates all facts and states of affairs in the Platonic heaven is our strong intuition that the fact of Quisling's betraying Norway should be something, if it is a thing at all, that is found in this world. Why should facts in this world be explained as real units in another world composed of mysterious counterparts? This particular intuition could be countered by Frege's suggestion that facts are nothing other than true propositions, which has some support in intuition and in linguistic usage. But following this line of thought, the linguistic view finally leads to the conclusion that linguistic states of affairs are really propositions and the linguistic view of

54 There are, of course, hints in Russell of the linguistic view of facts, not only in the discussion of complexes and propositions in the *Principles*, but also in "Logical Atomism". See, for example, p. 270.

55 See Newman, *The Physical Basis of Predication*, chap. 3, sec. 6.

states of affairs is nothing other than a theory of propositions. And, of course, it is characteristic of the linguistic view of states of affairs not to make any clear distinction between states of affairs and propositions; at best it is merely allowed that there might be a distinction to explain the fact that there is something linguistically awkward about saying that one believes a state of affairs.

On the other hand, if states of affairs were to be located in this world, then the Russellian propositions described in the last chapter would at least be good candidates for being states of affairs – they would have the same criterion of identity, at least. The differences are that there are only a limited number of Russellian propositions and they are all predicative propositions. There is also no distinction between true and false Russellian propositions, in that they are the same type of thing, and no sense in which a true Russellian proposition could be the same as a compositional fact, though facts could again, following Frege, be understood as just true Russellian propositions.

6.4 OLSON'S ACCOUNT OF FACTS

In his book *An Essay on Facts*, Olson argues that facts should be regarded as real units because only facts explain how properties and relations are bound to particulars. While Armstrong starts with the issue of truth makers, Olson starts with the question of what unifies the universe, but both end by claiming that the union of particulars and universals can be explained only by facts. Olson, however, unlike Armstrong, is not committed to the Fregean doctrine that universals are unsaturated. Olson quotes an argument from Ockham:

Ockham agrees with Aristotle that the unity of the universe consists in the order of its parts, that is in the relations that the parts have to one another. Now the way that the parts are ordered cannot be something distinct from the parts themselves, in other words, a relation cannot be something distinct from its terms. For if it were there would need to be a relation that relates the relation itself to the particulars that are its terms, and so on to infinity.⁵⁶

But this argument is based, of course, on the assumption that if two distinct things form a unit or are united in some way there is something that relates them. It is a crucial assumption, similar to the one made by Armstrong.

56 Olson, *An Essay on Facts*, p. 33; see Ockham, *Ordinatio*, in Hyman and Walsh, *The Philosophy of the Middle ages*, p. 685.

It follows from this assumption that if the relation that relates the two things is another distinct thing, something further is needed to relate the relation to its terms. However, even in the case of distinct particulars, it does not follow that they can be united in some way only if there is a real relation between them. For example, a material object and the parcel of matter that constitutes it are distinct particulars, but they are not really distinct and they are not connected by a real relation.⁵⁷ And although the assumption might have an intuitive appeal for some nominalists, it would not be granted by Tractarian nominalists. Immanent realists will grant the assumption for particulars that are really distinct, but will not grant the assumption for a particular and a universal, even though they could be regarded as really distinct. Any argument that appeals to this assumption without further refinement and defence can have only limited appeal.

The standard reply, as Olson reminds us, is that while relations are needed to connect particulars, there is no need for anything to connect relations to particulars. This is what Ockham called positing a stop at the second step. Olson asks why we should not posit a stop at the first step and have particulars immediately connected together with nothing further to connect them? Later he says, "If we can stop the regress at the second step by simply denying the need for anything to connect a relation to its terms, then we ought to be able to stop it at the first step by denying the necessity of the relation itself. And plurality is not to be posited beyond necessity."⁵⁸ Stopping at the first step would be equivalent to the nominalistic interpretation of the *Tractatus*, where particulars fit into one another like the links in a chain (2.03).

But merely asking the question, "Why not stop at the first step?" is by itself no fatal objection to stopping at the second step, and the appeal to economy does not override all other considerations. There is in fact no reason to suppose that economy is a good guide to truth in metaphysics, any more than simplicity is. Systems of metaphysics that are economical and simple are more convenient than those that are less so, and that is about all that can be said. Of course, an argument to the effect that economy

57 A material object and a parcel of matter are distinct, since they have different criteria of identity. They are not really distinct, since they cannot be presented separately, though perhaps they could be said to be formally distinct.

58 Olson, *An Essay on Facts*, p. 62. Russell replied to Bradley's regress argument by saying that there is a regress, but it is not vicious. Russell's argument can be modified to say that there is an infinite regress of true relational sentences, but only in the first sentence does the relational term refer to a real relation. All the sentences of the regress have the same truth maker, as Armstrong would put it.

and simplicity were good guides to truth in metaphysics would be of great interest, if someone could produce one.

One reason for stopping at the second step rather than the first is that it is more plausible to suggest that particulars and universals should fit into one another without intermediaries than that particulars should fit into one another without intermediaries, though the latter is not inconceivable. Another reason is that realism about universals does a better job than nominalism in explaining the common features of particulars and the causal powers of particulars, as Armstrong shows in *Nominalism and Realism*.

That particulars and universals are radically different kinds of thing, one being saturated and the other being unsaturated, is the basis for explaining how things fit together without intermediaries for the immanent realist. According to this view, only things of different types fit together without an intermediary, so that two particulars, being things of the same type, cannot fit together without an intermediary. But ignoring the difficulties with nominalism itself, it is difficult to argue against the view that particulars could fit together without intermediaries. The jigsaw puzzle piece metaphor, suggested by Max Black, shows that it is conceivable that a particular should be saturated at one end and unsaturated at the other end; alternatively, particulars could be regarded as having a protean character, sometimes being saturated and sometimes unsaturated.⁵⁹ However, I regard these views as less plausible than theoretical points of view that include realism about universals, as explained in Chapter 1.

According to Olson, the world for Ockham consists of independent Aristotelian substances, which are not the sort of thing that could bond together without an intermediary.⁶⁰ And not having the category of fact, the best Ockham could do to explain the unity of the universe was to

59 Black, *Companion*, p. 119. Logical symbolism is preferable to things like jigsaw puzzles because logical form has to be represented by the use of linear sequences. The empty place in the symbol for a universal signifies that it is unsaturated; this means, first, that a universal combines with a particular and only a particular, that a universal occurs only instantiated by a particular, and that a universal can occur in many places at once. A universal can combine with many particulars and a particular can combine with many universals, but given that a particular only occurs once, it follows that a universal occurs more than once.

60 For Ockham, relations and properties that changed continuously are not real things, but some properties are real things really distinct from their substances and are in effect tropes (*res absoluta realiter distincta*). See *Summa Logicae*, Pt. I, 24, 55. Cf. Olson, *An Essay on Facts*, p. 35. Apparently, Ockham himself believed that particulars are such that they could form a unity without the need for an intermediary.

regard relations as conceptual in nature, having foundations in some way on the monadic properties of substances.⁶¹

Olson claims that Bradley and Wittgenstein in the *Tractatus* took the same view as Ockham. Their contribution was to regard the unit thus formed as a real unit, known as a fact, though they differed in the ontological status they gave to facts.⁶² Wittgenstein believed in the natural ability of particulars to concatenate (on a nominalistic interpretation) and that the result of such concatenation was a unit, namely, a fact. But for Wittgenstein, the ability of particulars to concatenate explains the unity of a fact; the fact does not explain the unity, it is merely the result of it. For Bradley, however, who is followed in this by Olson, the fact explains the unity. A similar division of opinion would be possible among realists about universals: either a relation and particulars have a natural ability to concatenate, with the result being a fact, or the fact itself explains the unity of relation and particulars. Curiously, Armstrong's position is something of a hybrid, since it makes reference to both the unsaturatedness of universals, the natural ability to concatenate, and the unifying power of the fact itself. Olson, however, rejects the very idea of unsaturatedness.

The work to be done by the fact as unifier depends to some extent on how the relational component of the fact is understood. The following passage tells us something of the theory of universals that is presupposed in Olson's arguments:

But we must not think of the latter [i.e., the connection] as an abstract relation like eating that unites not only this wolf and that lamb but any pair consisting of an eater and an eaten. The word "relation" is ambiguous as between this and the more concrete sense of being related. It is in this latter sense that the judgement "the wolf is eating the lamb" may be said to affirm a relation between the wolf and the lamb; it does not affirm the abstract relation of eating, whatever that might entail.⁶³

The distinction between an abstract relation that relates many pairs of particulars and a concrete relation that relates only this particular to that particular appears to be our old friend the distinction between an abstract relation and a relating relation. For Olson, the abstract but sharable relation cannot do the job of connecting two particulars; only a concrete relation could do that. This makes intuitive sense, as the concrete relation is supposed to be there in the world alongside the two particulars, whereas the

61 Olson, *An Essay on Facts*, pp. 33–34.

62 *Ibid.*, p. 33.

63 *Ibid.*, pp. 60–61.

abstract particular appears to have the remoteness of a Platonic form. It is difficult, however, to see why Olson believes that judgement is about the concrete relation. That would make a false judgement about no relation at all, and it would also imply that an Olson-type fact cannot be expressed by a sentence, since in a sentence the predicate refers to something general or sharable.

Olson interprets Bradley as believing that “no regress is vicious except in the context of an explanation”, which is undoubtedly the right approach to regresses of this sort. It is possible for all the statements of an infinite regress to be true, but if the thing to be explained occurs at each step of the regress, then there is no explanation.

Bradley’s point is that any attempt to reduce a fact to terms and relations will either leave their connection out of the picture entirely, thereby missing out what is essential, or will end up reintroducing it at a higher level.⁶⁴

What requires explaining is the nature of the connection that exists among the components of a fact and why the components form a fact rather than a number of separate things, and why they form this fact rather than another fact with the same components – two facts being possible in the case of non-symmetric relations. Understanding the connection as a higher-order relation will not do. For it would be either a concrete relation, when we would be appealing to a fact (says Olson), or an abstract relation, which would be a further separate item in need of being connected, leading to a vicious regress.

Olson admits that Frege’s notion of unsaturated entities does provide an answer of sorts without appealing to a higher-order relation. He claims that for Frege, a relation is whatever is left over when the particulars are removed, figuratively speaking, from a fact, which is Armstrong’s current view. He understands Frege as explaining unsaturated entities in terms of facts, and then he criticizes him for not being able to explain facts.⁶⁵ But Frege does not use facts to explain anything; inasmuch as he explains anything it is in terms of saturated and unsaturated entities, which are primitive notions, though partially explained in terms of each other and partially explained by the notion of mathematical function. Armstrong’s position, on the other hand, is that states of affairs and universals as states of affairs types are primitive notions partially explained in terms of one another.

64 *Ibid.*, p. 61.

65 *Ibid.*, pp. 61–62.

Frege's notion of unsaturatedness is, in my view, better suited to the universals of immanent realism than to Olson's Platonic concepts.⁶⁶ The distinction between an abstract relation and a concrete relation does not arise in immanent realism. Relations are only found actually relating, and what is found actually relating these two particulars is identical with what is found actually relating those two particulars. No explanation would be offered, or thought to be needed, as to why this wolf was eating this lamb, other than that the wolf had the opportunity and was faster and stronger.

Olson sees the higher-order relation theory and Frege's notion of unsaturatedness as the most obvious theories of the connection that exists among the components of a fact. Finding these views unsatisfactory, he identifies the connection existing among the components of a fact with the fact itself:

. . . 'connection' can only mean a being connected. There is not the same temptation to think of it as an additional thing that does the connecting. The connection is not a constituent of the fact; it is the fact itself.⁶⁷

Part of the reason for this identification of a connection with the fact itself is to avoid understanding a connection as an additional component of a fact and so avoiding regresses. If the connection were a distinct thing, then according to Olson's assumption it would require something to relate it to the components of the fact. The difficulties associated with this sort of identification have already been mentioned in the discussion of Armstrong's position.

Olson's account of facts is different from Armstrong's and notable for the way that he emphasizes that facts are irreducible entities in their own right, implying a form of holism. Bradley, according to Olson, understood a relational fact as a concrete whole that is given first and the particulars and the relation as abstractions from the concrete fact. Olson says little about this position; what he does say is designed merely to explain the difference between Bradley and Russell:

If there is any disagreement between Bradley and Russell, it is on the issue of holism. Russell, while acknowledging the irreducibility of facts, nevertheless thought of them as taking a back seat to the individuals and relations making

66 This view is discussed at length in Newman, *The Physical Basis of Predication*, chap. 2.

67 Olson, *An Essay on Facts*, p. 61.

them up. For Bradley, on the other hand, individuals were abstractions from concrete facts.⁶⁸

Both acknowledge that there are facts and that facts are not structureless but have components. And both acknowledge that particulars and relations are not found except as components of facts; and facts are not found except with particulars and relations as components. But given this agreement it is difficult to see what the difference is between Russell and Bradley, at least as explained in this passage. What is the difference between particulars and relations taking a back seat and facts taking a back seat; what is the difference between facts being prior and particulars and relations being prior? Indeed, what is the difference between Bradley's view that particulars and relations are abstract and facts concrete, and the opposite view that particulars and relations are concrete and facts abstract, which is perhaps Russell's view?⁶⁹

The way to justify the claim that facts are prior would be to ascribe to them some ontological role that particulars and relations do not have. The most obvious suggestion is that facts play a role in causality, as terms of causal relations, while particulars and relations play a role in causality only via facts.⁷⁰ A less than obvious suggestion is Olson's radically holistic account of the nature of facts.⁷¹ Facts, according to Olson, are given first and their component particulars and relations are regarded as abstracted from them in such a way that there is no unique way to resolve a fact into components, though there are constraints that limit the possible resolutions into components of any given fact. Olson ascribes this view to Frege, though unfortunately his discussion centres around what Frege said about definite descriptions, which at best could work only by analogy.⁷²

Olson formulates what he calls an *existentialist criterion of identity* for facts. Two facts are identical whenever they necessarily coexist: "We ask

68 Ibid., p. 64. In *Situations and Attitudes* (see pp. 49–58), Perry and Barwise distinguish between real situations and abstract situations. Real situations are basic and metaphysically prior to objects, properties, relations, and space-time locations, which are uniformities across real situations. Objects, properties, relations, and space-time locations are in their turn metaphysically and epistemologically prior to abstract situations, which are built up out of them as sets. They say that they "have no way to represent the connection between a real situation and its constituents."

69 For Armstrong, a universal is a state of affairs type, what is left "after the particular particulars involved in a state of affairs have been abstracted away in thought." *A World of States of Affairs*, pp. 28–29.

70 Cf. Armstrong, *Nominalism and Realism*, p. 132, and *A World of States of Affairs*, pp. 202–6.

71 Olson, *An Essay on Facts*, pp. 78–81.

72 Ibid.

whether either fact could conceivably exist without the other, and take a negative answer as showing that they are one and the same.”⁷³ The alternative, that facts are the same when they have the same components arranged in the same way, which would be appropriate for a compositional account of facts, he calls the *structuralist criterion of identity* for facts. To persuade us of the plausibility of the existentialist criterion of identity and to show that it is the one we naturally use, he asks us to consider whether the fact corresponding to the sentence ‘Brutus killed Caesar’ is the same as the fact corresponding to the sentence ‘Caesar was killed by Brutus’. We understand the corresponding facts to be the same, he claims, because we understand the facts to necessarily coexist, while he implies that if we used the structuralist criterion of identity we should be left wondering whether a relation of killing is the same as the relation of being killed.

But the real reason we believe the corresponding facts to be the same is that grammar alone permits any relational action sentence to be transformed from its active form to a passive form, and this is understood to be a matter of mere linguistic presentation. In the case of two sentences such as ‘*Rab*,’ and ‘*Rba*’, we would no doubt judge that the corresponding facts were the same if the relation *R* were symmetric, but that is based on an understanding of the nature of the relation. In other words, it is based on an understanding of the nature of one of the components of the fact, which betrays a structuralist or compositional approach. If the relation were asymmetric as in the case of the sentences ‘*a* is taller than *b*’ and ‘*b* is shorter than *a*’, the structuralist would understand the two facts described to be the same on account of understanding one relation to be the converse of the other.⁷⁴

In effect, the existentialist criterion of identity is a logico-linguistic criterion of identity. Where Davidson’s criterion of identity is that logically equivalent sentences correspond to the same fact, Olson’s existentialist criterion of identity is that “facts are identical whenever they necessarily coexist”.⁷⁵ But this order of putting it has the effect of making

73 Ibid., pp. 91–92.

74 Cf. Williamson, “Converse Relations”.

75 Davidson, “True to the Facts”, p. 42: “. . . if a statement corresponds to the fact described by an expression of the form ‘the fact that *p*’, then it corresponds to the fact described by ‘the fact that *q*’ provided ‘*p*’ and ‘*q*’ are logically equivalent sentences or one differs from the other in that a singular term has been replaced by a coextensive singular term.” Cf. Olson, *An Essay on Facts*, p. 91. Olson’s criterion of identity for facts does not make mention of the components of facts (not fixed for him), and it does not make mention of sentences, so it is difficult to see how facts are referred to or individuated.

possible worlds differ from each other absolutely, and not on account of being composed of different facts that differ on account of having different components. Facts would then differ absolutely, in much the same way that two different shades of colour differ absolutely. In the same way that a fact, on this view, is understood holistically as not having unique components, so also the possibility opens up of regarding possible worlds holistically as not having unique component facts. This is what you would expect if possible worlds were to differ absolutely and not on account of their component facts.

But it should be possible, on any view, to formulate criteria of identity for types of particular and types of universal. On the holistic view this would have to be done in terms of the facts that they figure in, since facts are prior and particulars and universals are derived. But in the light of the protean nature of facts, it is not clear that this can be done: sometimes a certain particular occurs in a certain fact and sometimes it does not.

A criterion of identity for a compositional view of facts will rely on sameness of components and sameness of arrangement of those components within the fact – Armstrong has just such a criterion of identity for his states of affairs, but adds that the arrangement of the components within the fact is just the fact itself.⁷⁶ At the very least, sameness of components would be a necessary condition for sameness of facts; consequently, any criterion of identity for facts will presuppose criteria of identity for the kinds of things that are components of facts. This is a sense in which particulars and universals are prior to facts even according to Armstrong's view of facts.⁷⁷

Sameness of the arrangement of components is the other necessary condition for sameness of facts. Armstrong's identification of the arrangement of components with the fact itself is obscure at the best of times. In the context of a criterion of identity it leads to the claim that when two facts have the same components, there is a possibility of their being the same, but otherwise they are the same when they are the same. In other words, two facts that have the same components, but which are nevertheless different facts, as, for example, in the case of asymmetric relations, differ absolutely. But such facts do not differ absolutely in the way, say, that two colours differ absolutely, since we actually know that they differ on account of a different order of particulars.

76 Armstrong, *A World of States of Affairs*, p. 133.

77 It seems hopeless to suggest that two particulars differ, or two relations differ, because they are components of different classes of facts.

Frege, Church, Davidson, and Gödel have produced arguments to show that all true sentences refer to the same thing.⁷⁸ Frege's original argument that all true sentences refer to one and the same object known as 'the True' can be summarized like this: the reference of a complex expression is determined by the references of its components so that substitution of one component of an expression for another with the same reference will leave the reference of the whole unchanged; if sentences are expressions that have references in a way at least similar to the way in which proper names (including definite descriptions) have references, and truth values are entities that could be the references of such expressions, then truth values are the only plausible type of entity that could be the references of sentences.⁷⁹ If his assumptions are granted, then, indeed, he has a case; the difficulty, of course, is that some of his assumptions are implausible.

At various places in his writings Davidson makes use of arguments similar to those of Gödel and Church. Where Church himself wanted to show that all true sentences referred to the same thing and was happy with the conclusion, since in company with Frege he took that thing to be "truth", Davidson uses similar arguments to draw conclusions that he regards as problematic. In "Truth and Meaning" of 1967, he takes his argument to show that all sentences with the same truth value have the same reference, which is the way Church put it, and Davidson concludes that if the meaning of a sentence is what it refers to, all sentences are synonymous, which he regards as "an intolerable result".⁸⁰ Two years later in "True to the Facts", the argument is phrased entirely in terms of sentences corresponding to facts. He concludes that "[s]ince apart from matters of correspondence no way of distinguishing facts has been proposed, and this test fails to uncover a single difference, we may read the result of our argument as showing that there is exactly one fact."⁸¹ That one fact he calls 'The Great Fact'. If the Great Fact is still a fact in one

78 For general discussions, see Olson, *An Essay on Facts*, pp. 83–100; Bennett, *Events and Their Names*, pp. 37–39; Perry and Barwise, *Situations and Attitudes*, pp. 23–26; Neale, "The Philosophical Significance of Gödel's Slingshot"; and Oppy, "The Philosophical Insignificance of Gödel's Slingshot".

79 Frege could add that sentences are complete expressions and should therefore have references. "Sense and Reference", pp. 162–65; cf. Gareth Evans, *The Varieties of Reference*, p. 24, and Olson, *An Essay on Facts*, p. 65.

80 Davidson, "Truth and Meaning", p. 19.

81 Davidson, "True to the Facts", p. 42. "This unalterable predicate ['corresponds to the Great Fact'] carries with it a redundant whiff of ontology, but beyond this there is apparently no telling it apart from 'is true'."

of the traditional senses, then it follows that different sentences that say completely different things about the world are made true by the same thing in the world. Davidson, of course, does not believe in the Great Fact and regards the argument as a *reductio ad absurdem*.

A minor advantage of Davidson's couching the argument in terms of correspondence with facts is that the problematic idea that sentences are expressions that have references is not involved. On the other hand, the argument becomes much more serious, since the very idea of a correspondence theory of truth is called into question. In 1990 in "The Structure and Content of Truth", Davidson referred back to the argument that all true sentences refer to the same thing, which he attributes to Frege, Church, and his own paper "True to the Facts" (1969), as an objection to correspondence theories in general.⁸² Nevertheless, in the very last paragraph of "True to the Facts" itself, he had concluded that Austin's "purified version of the correspondence theory of truth" deserves elaboration rather than the elimination, in opposition to Strawson, who recommended elimination.

It is not the aim of this section to give a complete, full-dress account of the slingshot argument; for that I refer the reader to Stephen Neale's paper, where it is argued that in general slingshot arguments do not succeed. But I do not think that I can leave out the slingshot entirely. My aim is to point out that the metaphysical conclusions that I have come to about facts, particularly the conclusions concerning the linguistic and compositional views of facts, and the conclusions I shall come to concerning identity sentences, have a bearing on that argument, and in fact block the argument. But even this requires a certain amount of detail. Because this book concerns metaphysical issues I limit myself to two rather general criticisms of slingshot arguments, and ignore the many possibilities for detailed criticism that arguments of this type provide. To provide a context for these criticisms, I reproduce Church's argument.

Church gave an argument that he claimed "leads us quickly to the conclusion, as at least plausible, that all true sentences have the same denotation."⁸³ The significance of his argument, so he claims, is that it enables one to generate large classes of sentences that have little in common with each other, but that nevertheless have the same reference.

82 Davidson, "The Structure and Content of Truth", p. 303 and n. 42. See also "The Folly of Trying to Define Truth" of 1996.

83 Church, *Introduction to Mathematical Logic*, pp. 24–25; cf. Olson, *An Essay on Facts*, pp. 65–66.

Church identified the reference of all true sentences with an abstract object called ‘truth’.

Church claims that all the following sentences must have the same reference, since the reference of sentence 1 is the same as the reference of sentence 2, the reference of sentence 2 is the same as the reference of sentence 3, and so on:

1. ‘Sir Walter Scott is the author of *Waverley*.’
2. ‘Sir Walter Scott is the man who wrote twenty-nine *Waverley* novels altogether.’
3. ‘The number, such that Sir Walter Scott is the man who wrote that many *Waverley* novels, is twenty-nine.’
4. ‘The number of counties in Utah is twenty-nine.’

Sentence 2 must have the same reference as sentence 1, since it is obtained from 1 by substituting for ‘the author of *Waverley*’ a co-referential term. Of sentences 2 and 3, Church says that sentence 2, if not synonymous with sentence 3, “is at least nearly so as to ensure its having the same denotation”.⁸⁴ Sentence 4, an identity sentence, is obtained from sentence 3, another identity sentence, by substituting for the subject term one with the same reference. The argument is supposed to show that two true sentences having very little in common, namely, 1 and 4, can have the same reference, which shows that it is possible to generate large classes of sentences that have little in common with each other but that nevertheless have the same reference.

My general metaphysical criticisms are that the argument assumes, implausibly, that each true sentence corresponds to a fact, and that it assumes, most implausibly, that not only does each true identity sentence correspond to a fact, but that that fact could be the same fact that a predicative sentence corresponds to. It is typical of slingshot arguments to make these two assumptions, and to make some move that involves an identity sentence corresponding to a fact – see Chapter 8, Section 8.9, for an argument that identity sentences do not correspond to facts in the required way. The assumption that each true sentence corresponds to a fact is apparently based both on a linguistic view of facts and a view of facts as things that exist in the world with some sort of reality, two views that did not appear compatible from our earlier discussion of the linguistic view of facts. The compositional view of facts, on the other hand, implies that not every true sentence corresponds to a fact, and we have seen that

84 Church, *Introduction to Mathematical Logic*, p. 25.

the correspondence theory of truth itself does not require that each true sentence should be made true by a single fact. The slingshot argument, if a threat at all, is only a threat to a correspondence theory of truth based on a linguistic view of facts, though it is questionable, as we have seen, whether a linguistic view of facts can make the required distinction between facts and propositions.

Davidson, it appears, has no notion of fact other than as a certain something in the world that corresponds to a sentence – “Since apart from matters of correspondence no way of distinguishing facts has been proposed”, so apparently each true sentence corresponds to a Davidsonian fact. But how are Davidsonian facts individuated? Only language can tell us, and the principle of individuation is that logically equivalent sentences refer to the same fact. But surely there are only two possible metaphysical conclusions: either Davidson’s fact is the True of Frege and Church, given that there is such a thing, or there are no such things as facts as understood by Davidson.

Unfortunately, the versions of the slingshot argument that are about facts, including Davidson’s, invoke an intuition of facts as things existing in the world while actually working with a linguistic view of facts. But, strictly speaking, these philosophers, including Davidson, have no right to the notion of a fact as something, a unit or an entity, existing in the world; at best they possess a linguistic view of facts with no supporting metaphysical theory as to where they might be located. The Platonic heaven is, in fact, the most likely location for the facts and states of affairs of the linguistic view, as was shown in our discussion of the linguistic view.

If for a moment, for the sake of illustration, we assume a compositional view of facts, it appears that the fact corresponding to the sentence ‘Sir Walter Scott is the man who wrote twenty-nine *Waverley* novels altogether’ has as components a single particular, namely, Sir Walter Scott, and the relation of identity or self-identity, assuming the objectual interpretation of identity sentences.⁸⁵ Similarly, the fact corresponding to the sentence ‘The number, such that Sir Walter Scott is the man who wrote that many *Waverley* novels, is twenty-nine’ has as components a single thing, namely, the number twenty-nine, and the relation of identity or self-identity. These two facts are clearly utterly different and there is no possibility of one metamorphosing into the other, for any view of facts other than Olson’s holistic view, where apparently a fact does not have fixed components.

85 See Chapter 8, Section 8.9.

The Metaphysics of Propositions

7.1 CURRENT THEORIES OF PROPOSITIONS

In *A Realist Conception of Truth*, Alston distinguishes two classes of answer to the question of the nature of propositions, ontologically serious answers and deflationary answers, where deflationists about propositions may be otherwise serious about ontology, but resist being ontologically serious in the same way about propositions.¹ Among the ontologically serious answers to the question of the nature of propositions, he distinguishes four main positions.

1. *Propositions are states of affairs, which are the sort of thing expressed by a gerundial phrase, and are things that may or may not obtain with the ones that obtain being facts.* This account is obviously based on a linguistic view of states of affairs and facts as opposed to a compositional view, and consequently it is not clear, ontologically speaking, what is being proposed. However, the arguments of the last chapter led to the conclusion that the most suitable interpretation for the facts and states of affairs of the linguistic view was that they were Platonic entities.

2. *Propositions are complex abstract objects with components and structure, in other words, Platonic entities. It has seemed natural to most people to regard these abstract objects as being rather like eternal sentences.* It is reasonable to suggest that a proposition as abstract object should have as components eternal Platonic counterparts of the things that the proposition is about. A predicative proposition, for example, would have as components an Idea of one particular, an Idea of the other particular, and an Idea of

¹ Alston, *A Realist Conception of Truth*, p. 18.

the relation that is thought to be instantiated by them. The structure of the proposition, that is, how its components are related to each other to form the proposition, would in some way mirror, or at least be related to, the structure of the fact that would obtain if the proposition were true. There would be a difficulty for those who take a Platonic view of universals, since there would be no apparent difference between a relation as an abstract object and an Idea of a relation, also an abstract object. One solution here would be to regard the proposition as composed of the Ideas of the particulars and the relation itself.

Alston, however, takes a somewhat different view of the components of propositions as abstract objects:²

Thus the proposition that gold is malleable, modelled on the sentence ‘gold is malleable’, will consist of the referent of ‘gold’, namely, gold, and the property of malleability, glued together by the relation of property possession. This view may or may not differ from (1), depending on just how states of affairs are constituted.

Unfortunately, it is not clear what sort of thing the referent of ‘gold’ is supposed to be, though it could be something in the space-time world as opposed to an abstract object.³ If so, then it is not clear how such a proposition differs from a fact. The idea that gold and the property of malleability should be “glued together” to form a proposition but not a fact is highly problematic, raising, curiously enough, just those objections that were levelled at Russell’s theory of belief.

3. *A proposition is a set of possible worlds.*⁴ The ontological claim that a proposition is actually identical to a set of possible worlds, which is a form of reductionism, is different from the claim that propositions can be represented by sets of possible worlds.⁵ Quite apart from the strangeness of the suggestion that what we believe is a set, let alone a set of possible worlds, the main difficulty with this identification is that all necessarily true propositions are identical.

4. *Propositions have no existence independent of “their content bearing involvements”; they exist only as “aspects of propositional attitudes and illocutionary*

2 Ibid.

3 Sometimes the referent is just taken to be the natural kind “gold” itself without any further ontological explanation being offered. The referent could also be the extension of the predicate ‘gold’, or it could be the property of being gold as understood by one of the solutions to the problem of universals.

4 Alston cites Stalnaker, *Inquiry*.

5 For a discussion of reductionist theories of propositions, see Bealer, “Propositions”, pp. 4–10.

acts". This is an Aristotelian account of propositions as opposed to the Platonic abstract objects account, and is the position that Alston himself favours, as does Armstrong in *A World of States of Affairs* and earlier in *Belief, Truth and Knowledge*, though neither are prepared to give details.⁶ In fact, Alston appears to resist the idea of giving details:

If a tiresomely persistent ontologist were to insist on an answer to the question as to just what those aspects are, the answer would be that they are specified by the clauses we use for content specification. That is what those aspects are. If we can understand, for example, what it is to insist that Susie is not here or to be thankful that the parade is over, we have all the understanding of what a proposition is that is needed.

If we understand those things, then, indeed, we understand what is proposed in both those cases; and if we are capable of understanding what is proposed in cases like these, then there is a sense in which we understand what it is to propose something. And for some purposes that may very well be all the understanding of propositions that is needed. But, in fact, understanding these things is by no means enough to help us understand whether a proposition is an entity of the Aristotelian type or an entity of the Platonic type, and that is a serious ontological issue about propositions if anything is. It is something of a mystery where Alston would draw the line between being ontologically serious and being a tiresomely persistent ontologist.

If the Aristotelian account is intended as an ontologically serious account of propositions, we are entitled to ask what the components of propositions are and what the structures of propositions are like. If the components of a predicative proposition are the particulars and relation themselves, then a Russellian theory is the only Aristotelian account I can think of – for if the particulars and universal formed a unit that could occur without the subject, it would not be an Aristotelian account. On the other hand, if the particulars and the relation are not components of the proposition, then the other option for a dependent Aristotelian account is that the components are mental entities, such as ideas or concepts, things dependent for their existence on the subject.⁷ If these mental entities as

6 Alston, *A Realist Conception of Truth*, pp. 19–20; Armstrong, *A World of States of Affairs*, p. 131, and *Belief, Truth and Knowledge*, pp. 48–49.

7 The Russellian theory of propositions is a type of existentialism, since a Russellian proposition is ontologically dependent on the things that the proposition is about, whereas the theories where the components of a proposition are mental entities would be examples of anti-existentialism, since a proposition composed of mental entities would not be ontologically dependent on the things the proposition was about. See Section 7.4 below.

components of a proposition were related to each other in a determinate way to form a proposition, then the result would be some sort of mental sentence theory of propositions as discussed in Chapter 3, Appendix 3.1.

5. According to deflationary accounts, propositions are aspects of propositional attitudes and illocutionary acts, but instead of being taken with ontological seriousness, as in the Aristotelian position, a deflationary attitude is taken towards them:

There can be an analogue of the reduction of properties to similarity relations between particulars. The proposition that gold is malleable simply is a respect in which certain assertions, expressions of opinion, beliefs, and doubts are similar to each other and different from other such items.

According to views of this type, propositions can be spoken of as entities, but only in a fictionalist or instrumentalist sort of way, though the example Alston gives of a deflationary account is an analogue of resemblance nominalism, yet another theory of propositions that is an analogue of a theory of universals.⁸

According to this analysis, the theories of propositions that should be taken seriously, ontologically speaking, are: propositions as states of affairs, propositions as abstract objects, propositions as mental sentences, and propositions as Russellian propositions. Of these, we have already discussed briefly propositions as mental sentences and Russellian propositions in some detail, and we have concluded that the most plausible ontological account of states of affairs is that they are Platonic entities, so these views do not need further discussion. There remains the Platonic or abstract objects account of propositions, which is definitely an ontologically serious account and the one that is taken the most seriously today. This chapter concludes with the rejection of Platonic propositions and the further recommendation of Russellian propositions as the most promising type of Aristotelian propositions.

From our point of view, the following are the questions that should be answered by a good theory of propositions:

1. What are the components of propositions?
2. How are the components of a proposition related to each other to form a proposition?
3. What sort of relation does the person who believes a proposition have to its components?

8 Alston, *A Realist Conception of truth*, pp. 19–20

4. What sort of relation does the person who believes a proposition have to the proposition as a whole?
5. How are the proposition and its components related to the things in the “world” that the proposition is about?
6. In what way is the proposition about those things in the “world”?

It can be seen from the previous discussions that few of the accounts of the nature of propositions answer all these questions well and with plausibility, and some answer very few of them.

7.2 MINIMALISM ABOUT PROPOSITIONS

In his paper “Propositions”, Richard Cartwright argues that there are such things as “statements” or “assertions”, or, following the title but not the text of his paper, “propositions”, and by means of a careful analysis of the way we use language he distinguishes statements from other types of thing, such as sentence tokens, sentence types, and sentence meanings. Although it cannot be regarded as an ontologically serious account of propositions, since it answers none of the questions a good theory of propositions should answer, it is significant because of the way it distinguishes propositions from other things and shows the need for propositions as truth bearers. It is a minimalist account of propositions because it argues that there are such things, while offering no account of the nature of propositions.⁹ Investigations of a different type are needed to reveal the nature of propositions.

One of the methods used by Cartwright is to draw our attention to how we speak. We are in the habit of referring to certain things and saying of them that they are true or false; for example, the use of the word ‘that’ in sentences such as “that is true” indicates that something is being referred to. There is reference and there is predication. Cartwright reserves the term ‘statement’ for what we seem to refer to, which is what is asserted on one occasion and could be asserted on other occasions, despite the fact that in ordinary language there is an act-content ambiguity associated with the term ‘statement’.¹⁰

9 Cartwright, “Propositions”, p. 51. Kirkham claims that his own position is consistent with what Cartwright has actually argued for; he claims that Cartwright has not argued that sentence meanings and sentence tokens are not truth bearers and claims that he has not argued that statements are. *Theories of Truth*, p. 355, n. 20. Kirkham notes that Cartwright still has his fans.

10 Cartwright, “Propositions”, pp. 34–36.

But there is no reason why the other things mentioned should not also be truth bearers, and Cartwright does indeed declare at the beginning of his paper that he leaves open the issue of whether there are many different kinds of truth bearer. He merely wants to draw our attention to one kind of truth bearer.¹¹ Susan Haack and Richard Kirkham follow Cartwright in thinking that a number of different kinds of thing could be truth bearers, while William Alston thinks that propositions (or statements) are the primary truth bearers from considerations concerning ordinary language, but thinks that there is no reason why other things such as sentence tokens or acts of belief should not be enrolled as truth bearers.¹² However, the way that the other things are explained as truth bearers depends conceptually on their relation to propositions. This seems to be a very sensible position.

In ordinary language there is an act-content ambiguity associated with what is uttered by a person. Cartwright reserves the term ‘sentence’ for what is uttered on one occasion and which could also be uttered on other occasions, so that a sentence is what is uttered as opposed to the act of uttering, and is a type, not a token.¹³ He infers that sentence-types are candidates for being truth bearers and not sentence-tokens. But I suspect that when users of ordinary language agree that what has been uttered on one occasion is the same as what has been uttered on another occasion, they are probably mean the statement expressed rather than a sentence type, which seems a strange thing for a person to utter. When what has been uttered on one occasion is the same as what has been uttered on another occasion, it is possible that what is uttered are two sentence tokens and the type of sameness involved is qualitative identity. I see no philosophical reasons here for rejecting sentence-tokens as things that can also be uttered, and things that can also be truth bearers.¹⁴

Cartwright gives an extended study of the relation between asserting a statement and uttering a sentence, a relation that he thinks is problematic on account of the complex way they are related. There is a difficulty in

11 Ibid., p. 34.

12 Haack, *Philosophy of Logics*, pp. 79-83.

13 Cartwright, “Propositions”, p. 37.

14 Sentence tokens are often rejected as truth bearers because their truth value can change with time. But I do not see why a sentence token should not be true one moment and false the next, in the same way that a name token can refer to one object one moment and another object the next moment. And I do not see what is wrong with a certain sentence token being true in one context and false in another context. The assumption involved is that a truth bearer must always have the same truth value, since truth is eternal and unchangeable and so truths must be eternal and unchangeable – but I am not sure what this means.

that it is possible to make a certain statement by uttering many different sentences, and yet possible to utter one of those sentences and not assert that statement, on account of a lack of an intention to do so.¹⁵ Cartwright says that there is here a similarity between asserting a certain statement and uttering a certain sentence (one event or act described in two different ways) and the way that a single act can be described both as an act of striking and also as an act of assaulting. But though it is true that what is struck is the same as what is assaulted, since striking and assaulting are related as species to genus, the similarity is only partial, since it is not the case that what is uttered is the same as what is asserted, and uttering and asserting are not related as species to genus.

Cartwright seems to overemphasize the difficulties here. A sentence-type, or indeed a sentence-token, can be uttered in at least two ways. It can be uttered mechanically, that is, with no intention of making a statement, for example, when making out an inscription that is not understood – “*Et in Arcadia Ego*”; or it can be uttered with the intention of asserting a certain statement, either the statement associated by convention with that sentence – the usual case – or perhaps some other statement the speaker thinks the sentence expresses. Asserting, of course, requires a physical manifestation, because that is how asserting differs from acts like judging; otherwise the best that can be said is that there is a unique statement that a complete sentence (see later) conventionally expresses and which it is normal to use that sentence to assert.

But Cartwright’s purpose is to draw our attention to the differences between statements and sentences. From the fact that people speaking different languages can utter different sentences and yet what is asserted be exactly the same thing, Cartwright concludes that it impossible that what is asserted be the same as what is uttered. He compares this argument to the argument that what is uttered cannot be the same as what is asserted on account of the possibility of a sentence being uttered without any assertion being made.¹⁶ The policies of identification associated with sentences are also distinct from the policies of identification associated with statements: they differ, as he puts it, in their arithmetic.¹⁷ He concludes that no one ever asserts what he utters, which leads to the stronger conclusion that what is asserted is not a sentence at all.¹⁸

15 Cartwright, “Propositions”, pp. 38–39.

16 Ibid., p. 39.

17 Ibid., p. 40.

18 Ibid., pp. 41–42.

He next argues that a statement, what is asserted, cannot be identified with the meaning of a sentence. There are sentences, ones containing indexicals such as ‘it’s raining’, that are used to make different statements when uttered in different contexts of utterance, which may differ as to place, time, and utterer. Since the words that are the components of a sentence retain their meanings in whatever context they are uttered, Cartwright infers that the whole sentence preserves its meaning in whatever context it is uttered. And since the statement expressed does vary from context to context, the statement expressed by a sentence is not the same thing, or the same kind of thing, as the meaning of the sentence. It could be objected, however, that it is not clear what the “meaning” of a sentence is, since there could a number of things that could be called ‘the meaning of a sentence’. And the argument apparently assumes that the relevant meaning of a sentence is the “sentence meaning”, which is by definition something determined by the meanings of the words alone.

This argument does not show that it is always the case that what is asserted cannot be identified with the sentence meaning, since it might be still possible for the statement expressed to be the same as the sentence meaning in the case of sentences that express the same statement in all contexts, which Cartwright calls complete sentences. A different type of argument is needed to show that what is asserted is never what is meant by a sentence. Here Cartwright appeals to the way different things are predicated of them: “It simply makes no sense to say that someone asserted the meaning of a sentence – any more than it makes sense to say that he said it.” Cartwright concludes that statements are not sentence meanings.¹⁹ Even so, he does not seem to have completely abandoned the idea that the sentence meaning of a complete sentence is what is asserted.²⁰

Kirkham complains that Cartwright has merely claimed and not argued that sentence meanings are not truth bearers.²¹ For another argument that sentence meanings are not truth bearers, we can turn to David Bell, who argues, in effect, that they belong to different categories.²² For an *incomplete* sentence, the statement it expresses is determined by three types of thing, (1) the meanings of its component words, (2) grammar plus word

19 Ibid., p. 50. Although both Cartwright and David Bell declare that we do not speak of statements as the meanings of sentences, or as what a sentence means, I doubt that these are altogether impossible ways of speaking.

20 Ibid., p. 51, but cf. p. 53.

21 Kirkham, *Theories of Truth*.

22 See the discussion of input and output sense in Bell, *Frege's Theory of Judgement*, pp. 112–25.

order, and (3) the context of utterance; whereas for a *complete* sentence, the statement it expresses is determined by two types of thing: the meanings of its component words and grammar plus word order.²³ A sentence meaning, on the other hand, is determined only by the meanings of its component words and grammar plus word order, both in the case of complete sentences and incomplete sentences. There is nothing indeterminate about a sentence meaning; indeed, it is the sentence meaning that is translated into other languages.²⁴ And if someone were to make the reasonable claim that a sentence meaning had a truth value when used by a person in a certain context with the intention of making a statement, it could be answered that the sentence meaning only had a courtesy truth value on account of the sentence's being used to make a statement.

This issue also arises in a discussion of a problem in the interpretation of Frege. For Frege, the senses of the component parts of a sentence determine its sense, and the sense of a sentence determines its truth value.²⁵ But this double doctrine does not work as it stands on account of incomplete sentences. Bell modifies Frege's double doctrine to read: the senses of the component parts of a sentence determine its input sense (the sentence meaning), and the output sense of a sentence (the statement expressed) determines its truth value.²⁶ The difficulty associated with incomplete sentences and contexts of utterance is really a difficulty about reference. The component words of a sentence have sense, and the whole sentence has sentence meaning, independently of whether the singular terms in the sentence have reference or not, and independently, to some extent, of which references they have. The statement expressed by a sentence (its output sense), on the other hand, depends critically on which references the singular terms possess; and whether the sentence expresses a statement at all depends critically on whether the singular terms actually have references:

...for as we have seen, sub-sentential expressions do not have output sense [express a statement]. On the other hand, however, the substantial issues concerning reference do affect the output sense, if any of a sentence. If a singular term which does not refer, in fact, to anything occurs as the subject term of a declarative sentence, then the sentence will not express an output sense. For

23 Bell says, in effect, that the directional nature of a relation is part of the sense of the predicate that refers to it. *Frege's Theory of Judgement*, p. 113.

24 *Ibid.*, p. 117.

25 Tyler Burge discusses this problem somewhat less sympathetically in "Sinning against Frege".

26 *Frege's Theory of Judgement*, pp. 118–19

in (putatively) asserting of the king of France that he is bald, I am not in fact asserting baldness of anything: there *is* no present king of France. There is only pseudo-assertion here just as, and just because, there is only pseudo-reference.²⁷

And at the bottom of the same page he says:

For if what is primarily true or false is the assertion, of some object, that it possesses a given characteristic, then the possession of reference by the subject term of the sentence employed to make this claim will be a necessary condition of its being either true or false. Sentential input sense [sentence meaning], on the other hand, is insensitive to success or failure of reference.

It follows not only that statement and sentence meaning are different kinds of thing, so that even the sentence meaning of a complete sentence cannot be identified with a statement, but that a sentence meaning is not the kind of thing that could be a truth bearer, since truth bearers are sensitive to reference. This argument does not depend upon any particular account of the nature of the senses of words, though it does depend on assuming that there is more to the meaning of a word than its reference or that the sense of a word is something other than its reference.

Fregean thoughts are difficult to understand since they are something of a hybrid between sentence meanings and singular propositions. They are expressed by complete sentences, in which respect they are similar to singular propositions; on the other hand, two sentences can express different thoughts despite asserting the same characteristic of the same object, on account of using different definite descriptions to refer to that object. A suitable sentence can also express a thought whether the singular term has a reference or not and so it is possible for a sentence to express a thought and yet be associated with no singular proposition.²⁸ Some people think that the Fregean thought is what is believed, since it appears to be possible to believe that “the morning star is a planet” without believing that “the evening star is a planet”, and it could be argued that if the Fregean thought expressed by a sentence is what is believed, then it is the Fregean thought that is either true or false. It is also possible, however, that a Fregean thought is merely the sentence meaning of a complete sentence.²⁹

27 Ibid., p. 116. Cf. Geach, “Review of Michael Dummett’s, *Frege: Philosophy of Language*”.

28 Bell, *Frege’s Theory of Judgement*, p. 124; Frege, “Thoughts”, pp. 370–71.

29 See the discussion of guise theory in Chapter 5, Appendix 5.1, Objection 8.

7.3 THE ONTOLOGICAL CASE FOR PLATONISM ABOUT PROPOSITIONS

Raymond Bradley and Norman Swartz follow a similar route to Cartwright's. They also consider sentence-tokens, sentence-types, sentence meanings, and propositions (statements). But while Cartwright discards the first three categories as not being statements, and therefore not the category that he wishes to isolate, Bradley and Swartz argue that only Platonic propositions are truth bearers so that attributions of truth and falsehood to other things are merely "expedient ellipses".³⁰ And while Cartwright has a minimalist view of propositions, they have a full-blown metaphysical account of propositions as non-tangible, timeless entities, abstract with respect to the sentences that express them and with respect to the languages in which those sentences are expressed, and occupying Plato's heaven, or the third realm of things that are accessible to everyone in thought but inaccessible as far as the senses and causality go.³¹

Bradley and Swartz compare the distinction between sentences and propositions to the distinction between numerals and numbers. Sentences, like numerals, have physical existence and physical properties, while propositions, like numbers, do not, and sentences do not stand in one-to-one correspondence with propositions in the same way that numerals do not stand in one-to-one correspondence with numbers. Propositions, unlike sentences, have logically significant properties such as truth values and modal properties; they can stand in modal relations to each other; and logical connectives join propositions, not sentences.³² The idea is that in the same way that arithmetic is about numbers and not about numerals, so also logic, beliefs and other propositional attitudes, and issues concerning truth and falsity concern propositions as opposed to sentences.

To be strict, of course, sentences are not analogous to numerals, since sentences do not refer to propositions, they express them. If propositions are units of any sort, then it should be possible to refer to them using names, but those names will not be sentences.

One of Bradley and Schwarz's principal arguments is that the number of truths and falsehoods is non-countably infinite, while the number of belief acts or the number of sentence tokens is smaller and probably not infinite. Not only are there truths about each natural number, there are

30 Bradley and Swartz, *Possible Worlds*, p. 86.

31 *Ibid.*, p. 85.

32 *Ibid.*, p. 66.

truths about each real number; therefore, the number of necessary truths is non-countably infinite. Moreover, there is a contingent truth concerning whether each point of space is occupied or not, so that even the number of contingent truths is non-countably infinite. They argue that “it is logically impossible that truths and falsehoods should be belief acts if there are more truths and falsehoods than there are belief acts.”³³ Humans clearly have not believed all that there is to believe, and it is possible that a positive belief be believed but its contradictory not be believed, so that there would be a truth without its contradictory.³⁴ And logic requires that each proposition have its contradictory.

It is possible for a thing to be true, they claim, even if not believed, and not in a counterfactual sense, either.

That is, our common, hard-won conception of truth and falsehood has it that truth and falsehood may exist independent of human belief, that truth and falsehood do not as it were ‘come into existence’ with correct or mistaken human belief. . . . It is the widespread and strong belief that there are unexpressed and unbelieved truths and falsehoods which prompts us to look for a truth-value vehicle of prodigious number.³⁵

Their argument seems to be that if the earth was round in the Cambrian age before humans came on the scene, then there must have been at that time a truth that the earth is round; not only was there a fact in the world of the earth’s being round, there was also a proposition in the Platonic heaven of “that the earth is round”. The earth and its shape had contrived before the coming of humans to generate not only a further entity in this world, but also a further entity in another world. At one time in our history the proposition that the earth is round was an unexpressed and unbelieved truth about the past, about the present, and, indeed, about the future; it was something that was true and waiting to be discovered, though for some reason it waited in the Platonic heaven. But surely one further entity waiting around to be discovered would be enough, and surely the fact of the earth’s being round would be the best entity for that purpose, though it is not a truth.

That the earth is a cube is an unexpressed and unbelieved falsehood, which if it is a Platonic proposition has the same ontological status as the truth that the earth is round, but the best that can be said for it is that it

33 Ibid., p. 69. For a discussion of sentence-tokens, see pp. 73–74.

34 Ibid., pp. 69–70.

35 Ibid., p. 70.

is a possible human construction. It is not generated by anything in the world; it is there in the Platonic realm simply because it could be believed and could be expressed.³⁶

Where Bradley and Swartz had one conception, Russell, in contrast, had two. For Russell, truth and falsehood are *mind dependent* in the sense that there would be no truth or falsehood without minds to perform acts of believing; it is the human mind that makes mistakes, so that there can be no falsehood without minds to make mistakes, but truths and falsehoods must have the same status, so both must be mind-dependent.³⁷ On the other hand, truth and falsehood are *mind independent* in the sense that whether a belief is true or false depends only on facts found in the world.³⁸ “Hence we account simultaneously for the two facts that beliefs (a) depend on minds for their existence, (b) do not depend on minds for their truth.”³⁹ If Bradley and Swartz are appealing to a hard-won, universally held conception, it is only the second of Russell’s conceptions, that whether a belief is true or false is mind-independent, that they can appeal to with hope of wide agreement. The objectivity of truth and falsehood is different from the objective independent existence of truths and falsehoods, so that the objectivity of truth and falsehood does not entail the objective, independent existence of truths and falsehoods.

Another reason for suggesting that Platonic propositions are truth bearers is that only they provide the full range of things that are believed and could possibly be believed that are needed for the purposes of logic and to be quantified over. But the formal logicians themselves seem much happier considering sentence tokens as truth bearers, and if truths are to be quantified over, then the substitutional interpretation of the quantifiers seems to be what is required rather than the objectual interpretation. Perhaps the heart of the case for Platonic propositions is that it must be possible to quantify over truths and that what we quantify over are, for us, objects.⁴⁰

36 Evan Fales comments that there are truths that cannot be believed or expressed, but lie beyond our conceptual powers. Perhaps they are constructible in the sense that it is possible for there to be a more intelligent being who could believe them. In fact, theism leads inevitably to there being truths beyond our conceptual powers (though it did not lead Fales to it); but it also leads to God believing them so such propositions are instantiated.

37 Russell, *The Problems of Philosophy*, p. 152.

38 *Ibid.*, p. 158.

39 *Ibid.*, p. 202.

40 See Kripke, “Is There a Problem about Substitutional Quantification?”, who argues that both interpretations have their uses. For a critique of Quine’s doctrine of the ontological commitment implied by quantification, see Newman, *The Physical Basis of Predication*, chap. 2.

Truth bearers could be regarded as things that can be constructed from already given materials and so need not be actually infinite in number: given an actual proposition, its contradictory could be constructed, and given a number of atomic propositions, complex molecular propositions can be constructed using the logical connectives. If their components are entities in the spatio-temporal world, as Russell supposed, then atomic propositions can be constructed out of already given materials. Russellian propositions occur only when they are believed by a subject or are otherwise involved in propositional attitudes.

7.4 BEALER ON STRUCTURELESS PLATONIC PROPOSITIONS

In a recent paper on propositions, George Bealer defends what he calls the traditional theory of propositions, which includes the following points:⁴¹

1. Propositions are the primary truth bearers and are what the modal operators apply to.
2. They are mind-independent, extra-linguistic, abstract objects.
3. In a belief state, or any propositional attitude state, a subject stands in a two-place relation, such as believing, with a proposition.
4. Propositions are public.
5. Propositions are what sentences express or mean.

Although intended with ontological seriousness, the motivation appears to come not so much from a commitment to Platonism as from Quine's suggestion that abstract objects must in some cases be supposed to exist in order to make the propositions of an accepted theory true.

Bealer's ontology consists of what he calls an intensional structure, which consists of a domain, a set of logical constants, and a set of possible extensionalization functions. A domain is the union of a set of particulars, a set of propositions, a set of properties, a set of binary relations.

The possible extensionalization functions assign an extension to each item in the domain; each proposition is assigned a truth value, each property is assigned a set of items in the domain; each binary relation is assigned a set of ordered pairs of items in the domain; etc.⁴²

However, it is not clear what an extensionalization function does to particulars, except perhaps to map a particular into itself.

41 Bealer, "Propositions", p. 1.

42 *Ibid.*, p. 11.

For Bealer, propositions are *sui generis*, irreducible intensional entities; they are not to be identified with sets, though they could be represented by certain sets. He rejects existentialism about propositions, where the existentialist believes that “necessarily, a proposition exists only if its “constituents” exist”, and embraces anti-existentialism.⁴³ According to Bealer’s anti-existentialism, a proposition can exist even though the particular that it is about does not exist. Though he does not comment on the components of propositions, it appears that a proposition itself would have to be an abstract object that either does not have components or does not have components that we are familiar with. But the idea that when a person believes a proposition, he believes a point in the world of abstract objects (or something with components we are unfamiliar with), makes no more sense than the suggestion that what a person believes is a set of possible worlds.

The following quote shows what his anti-existentialism amounts to and how he defends it:

The non-reductionist approach provides a framework for showing how the proposition [$x = x$] could exist even when the contingent particular x did not. The proposition that $x = x$, like all propositions, is an irreducible intensional entity. Although the operation of singular predication maps self-identity and x to this proposition, one is free to hold that the existence of this proposition does not entail the existence of x .⁴⁴

If the particular exists, then the singular predication operator maps the particular and the property of self-identity into the proposition, but if the particular does not exist, then it is nevertheless possible that the particular should exist and that the singular predication operator should map the particular and the property of self-identity into the proposition. The explanation of how the proposition can exist when the particular does not exist seems to consist in the suggestion that a particular is related to a proposition that concerns it by a set-theoretic function, namely, the singular predication operator, and not by the relation of a component to a whole.⁴⁵ An image of a function exists independently of the arguments of the function, whereas a whole does not exist independently of its components.

43 Ibid., p. 12. Russellianism about propositions entails existentialism about propositions.

44 Ibid., pp. 12–13.

45 It is not clear what he means by the concluding statement: “This account allows one to hold that, for all x , necessarily, the proposition that $x = x$ exists.” (ibid., p. 13) But surely one only quantifies over existing particulars.

However, I claim that it is not possible to refer to a *certain* particular that does not exist, nor to say of a *certain* particular that it does not exist.⁴⁶ You cannot say that it is possible for a certain non-existent mouse to be in a certain place; all that you can say is that it is possible for there to be a mouse in a certain place.⁴⁷ All this, of course, is phrased in terms of what persons can think of, what persons can say, and what persons using language can refer to, though the underlying reason is that there is nothing there for them to refer to or think of.

Now, if propositions were abstract objects and it was claimed that there exist propositions about non-existent objects, then such a proposition would have to have something about it, presumably some component, that made that proposition to be about that certain non-existent object. Since the object itself can play no role on account of being non-existent (a serious disability), the only way a proposition can be about a certain non-existent object is by making use in some way of the object's individual essence or haecceity. Our inability to refer to or think about non-existent objects could then be explained by our inability to grasp haecceities.

Although Bealer rejects haecceities and possible objects,⁴⁸ rightly, in my view, I cannot see how such a proposition could not contain something that does the work of an haecceity, something which would look very much like an haecceity, and which would in effect be an haecceity. Even if it were possible to explain what a *qualitative haecceity* is – which I think cannot be done and *quidditative haecceities* are ruled out – those who believe in abstract objects (and I am not among them) will have difficulty

46 Plantinga thinks that particulars that do not exist can for all that have properties. His defence of *anti-existentialism* centres around a consideration of the proposition that it is possible that Socrates does not exist. See Plantinga, "On Existentialism". He is a Platonic realist about possible worlds and happily embraces haecceities (see Chisholm, *On Metaphysics*, chap. 5, for a related argument against haecceities). The notion of haecceity is introduced by some to explain unrealized possibilities in terms of possible worlds. There are sentences that look as though they express singular existential propositions, both positive and negative; but whether they are genuine singular propositions or predicative propositions, is controversial, too controversial to warrant building theories on them. I incline to the view that the sentence 'Pegasus does not exist' is about such a horse rather than about a certain horse. I also think that no sort of haecceity can make a proposition to be about an object that does not exist – but this is related to my rejection of possible worlds. Russell's theory of descriptions is a way of making the sentence 'Pegasus does not exist' to be about "such a horse". If it is indeed the only way of making the sentence to be about "such a horse", then I follow Russell.

47 For a discussion of alien individuals, see Newman, *The Physical Basis of Predication*, pp. 54–57.

48 Bealer, "Propositions", p. 12, n. 13.

in believing in the realm of abstract objects being so heavily populated with all the haecceities of all the possible objects.⁴⁹

Apart from arguing against reductionism, one of Bealer's main aims is to show how propositions can be fine-grained. In other words, he hopes to be able to explain how the proposition that Cicero is Tully differs from the proposition that Cicero is Cicero, and how the proposition that Cicero is Tully can be both necessary and *a posteriori* – something required by what Bealer calls the scientific essentialism of Kripke and Putnam.⁵⁰ Bealer's goal is a theory of propositions where the proposition that Cicero is a person and the proposition that Tully is a person are distinct propositions; the propositions should be independent of contingently existing things (anti-existentialism); they should be necessarily true; and they should not be expressible by sentences containing definite descriptions.⁵¹

Bealer uses the expression “Cicero” for a non-Platonic mode of presentation, which is a public linguistic entity associated with the name ‘Cicero’, examples of which are our practice of using the name to refer to Cicero, or the historical naming tree associated with the name, or the living name itself.⁵² The expression refers to the most promising mode of presentation, whichever you take that to be. An extensionalization function maps a mode of presentation into a set containing the particular that it is about, so that the actual extensionalization function H maps both modes of presentation “Cicero” and “Tully” into the singleton set containing only the famous orator.

The operation of descriptive predication, pred_d , maps a property and a mode of presentation into a proposition. For example, pred_d (being a person, “Cicero”) and pred_d (being a person, “Tully”) are propositions. And Bealer says, “Given that “Cicero” and “Tully” are distinct, pred_d (being a person, “Cicero”) and pred_d (being a person, “Tully”) would be

49 The quidditative haecceity of the particular a is a property signified by the expression ‘= a ’. This property is ontologically dependent on the particular a . See Plantinga, “On Existentialism”, and Adams, “Primitive Thisness”.

50 Bealer, “Propositions”, p. 3, n. 2.

51 *Ibid.*, p. 19. It is necessary, because for all extensionalization functions and all modes of presentation of Cicero, the propositions that are images of the pred_d operator are true.

52 A living name is a name in the fine-grained sense: two living names are the same if they have the same form and refer to the same thing, as opposed to mere homonyms. A living name is necessarily attached to its object. But a name here is not a mere object, but an object under a certain use, or an object together with a certain intentional relation. Definite descriptions do not express modes of presentation on this view, so modes of description do not include senses of proper names in Frege's original sense.

distinct.”⁵³ In the same way that the singular predication operator maps a particular and a property into a proposition, so also the descriptive predication operator maps a mode of presentation and a property into a proposition. In this way, the propositions can exist even if the socially constructed modes of presentation do not exist. And in the same way that a particular and a proposition about it are related by a set-theoretic function, not as part to whole, so also a mode of presentation and a proposition associated with it are related by a set-theoretic function, not as part to whole.

But given that this theory tells us so little about propositions, their components, and their structure, I am not sure that Bealer is justified in concluding that distinct modes of presentation imply distinct propositions. From what he has told us, and ignoring other considerations, it is indeed conceivable that the descriptive predication operator should map these different modes of presentation into different propositions, but it is also conceivable that it should map them into the same proposition.

My main objection, however, concerns a certain aspect of the theory that these arguments are meant to save, namely, that identity sentences express propositions that are necessary and *a posteriori*. The only explanation for an identity sentence expressing a necessary proposition is if the relation involved is identity, or self-identity, and then the proposition expressed would assert identity of a certain particular, not, of course, of a mode of presentation. Identity sentences do, indeed, have the form of predicative sentences, and they can be regarded as expressing predicative propositions about the relation of identity; this is what is semantically encoded, to use Nathan Salmon’s terminology. But it is quite clear that their usefulness in imparting information goes beyond informing us about the relation of identity; they frequently impart information concerning names and reference or descriptions, for example. This is what Salmon says is pragmatically imparted. If there were such a relation or property as identity, then a particular would possess it necessarily, but it does not follow from this that what is pragmatically imparted by an identity sentence is necessary. The difficulties associated with identity sentences are discussed in Chapter 8, Section 8.9.⁵⁴

53 Ibid., p. 18.

54 It is difficult to know what to make of Bealer’s example of the sentences ‘Cicero is emulated more than Tully’ and ‘Tully is emulated more than Cicero’ (p. 2). Consider the simpler example ‘Cicero is taller than Tully’ and ‘Tully is taller than Cicero’. Bealer’s point is that *prima facie* they do not mean the same thing, so the propositions expressed differ somehow. On the other hand, there is no reason to believe that in general a difference in

That propositions are not unanalysable wholes, but must have components and structure, is a reasonable and plausible assumption.⁵⁵ That we use sentences to express propositions points to the complexity of propositions, and points to the way in which they are complex. Moreover, we do analyse propositions, usually by analysing sentences that express them, and we tend to assume that the individuation of propositions must have something to do with the components and structure of the sentences that express them.

Bradley and Swartz give an account of the structure of Platonic propositions that is related to a similar account given by Strawson, where the components of propositions are concepts, which are mind-independent, non-linguistic entities.⁵⁶ Concepts are introduced as what are expressed by open sentences, where an open sentence is a part of a sentence where the gap is to be filled by a referring expression, and they have the following identity conditions: "Concepts are identical if and only if they are equivalent [have the same extension in all possible worlds] and there is no constituent of one which is not equivalent to one of the constituents of the other."⁵⁷ For example, the proposition that Canada is south of Mexico has as components the following concepts: *being Canada*, *being Mexico*, and *being to the south of*.⁵⁸ The order of constituents is essential to a proposition, but, nevertheless, the order relation is not another constituent, otherwise there would be an infinite regress.⁵⁹

One of the most significant conceptual issues associated with Platonic propositions is the role they play when a person believes that a particular in this world has a certain property. It would not make any sense for a

sentence meaning implies a difference in the proposition expressed – the two are different, as Cartwright has argued. It could be suggested that the sentence 'Cicero is taller than Tully' is meaningful but false because they are both exactly the same height.

55 Bradley and Swartz, *Possible Worlds*, p. 94. Bealer's propositions appear to be unanalysable wholes, in effect, points in Platonic space.

56 Bradley and Swartz, *Possible Worlds*, pp. 87–94; Strawson, *Subject and Predicate in Logic and Grammar*; see pp. 20–35 and 84–92 for an account of propositional structure, and pp. 13–20 for an account of concepts.

57 *Ibid.*, pp. 92–94.

58 Unlike Strawson, Bradley and Swartz (*Possible Worlds*, p. 89, n. 21) do not regard properties and relations as concepts; they do, however, believe that there are concepts of properties and concepts of relations. This is a departure from traditional Platonism, but in traditional Platonism it would not be possible to have a fact and a totally distinct but parallel proposition in the Platonic realm – though Plato himself may have believed in tropes. But the theory of propositions works in much the same way whether you take Strawson's view or Bradley and Swartz's.

59 *Ibid.*, p. 95.

Platonic proposition to ascribe a concept of a property to a concept of a particular; there must be some way in which a Platonic proposition ascribes the property in question to the particular in question. To do this there must be a proposition-yielding relation, which, taking the relevant concepts into account, assigns a property to a particular. The way in which a proposition-yielding relation works can be expressed as follows:

The item of which *being Canada* is the concept stands in the relation of which *being south of* is the concept to the item of which *being Mexico* is the concept

or, in the locution of modern logic

there is an item, x , such that x falls under the concept of *being Canada*, and there is an item, y , such that y falls under the concept of *being Mexico*, and x and y (in that order) fall under the concept of being south of.⁶⁰

Strawson writes ‘ $ass\ \varepsilon\ g$ ’ to represent the proposition yielding relation where ‘ ass ’ signifies assignment: “. . . we can say that the proposition just is its constituent concepts standing in the proposition-yielding relation . . . or a proposition just is a truth-valued combination of concepts.”⁶¹ The structure $ass\ \varepsilon\ \textit{being Canada}, \textit{being south of}, \textit{being Mexico}\ \varepsilon\ g$ is just the proposition Canada is south of Mexico, or in general terms, “a proposition just is its constituent concepts standing in the proposition-yielding relation”. The identity conditions for propositions are: “a proposition P is identical to a proposition Q if and only if P and Q have identical conceptual constituents, standing in the same order in the proposition-yielding relation.”⁶²

To understand the proposition-yielding relation, consider the sentence ‘ $ass\ \varepsilon\ \textit{being Canada}, \textit{being south of}, \textit{being Mexico}\ \varepsilon\ g$ ’. One possible interpretation is that ‘ $ass\ \varepsilon\ g$ ’ signifies a relation between concepts. According to this interpretation, the sentence says that the three concepts are related in a certain way, related to each other, in fact, in such a way as to form a Platonic proposition. But if the sentence says that the concepts are related to each other, it does not say anything about Canada and Mexico themselves, and consequently does not express the proposition that we are interested in. Of course, the unit formed by the concepts being related to each other by the relation signified by ‘ $ass\ \varepsilon\ g$ ’ could be regarded as a sentence,

60 Ibid., p. 96.

61 Ibid.

62 Ibid., p. 97.

an eternal Platonic sentence. But sentences, even eternal Platonic ones, are not propositions; sentences, even eternal ones, merely express propositions. A sentence has components that refer to things in the world and which, in virtue of its components and structure, says something about particulars in the world. How would a non-tangible, eternal, language-independent sentence assist an ordinary sentence in its work, since they both do the same thing in approximately the same sort of way?

The other possible interpretation is that the proposition-yielding relation $assf \ g$ is a set-theoretic function that maps ordered sets of concepts into propositions, rather like one of George Bealer's set-theoretic functions that involve propositions. If ' $assf \ g$ ' signifies a function, then ' $assf \ being \ Canada, \ being \ south \ of, \ being \ Mexico \ g$ ' would, strictly speaking, be the proper name of the value that the function maps the set of arguments into. It would, in effect, be the proper name of a proposition, rather than a sentence that expresses it. But let us grant a little leeway for a moment and ignore such technical details.

If the function $assf \ g$ maps an ordered set of concepts into a proposition, the ordered set of concepts will not itself be the proposition, though it could be used to represent it, and the concepts that are members of the ordered set will not be components or parts of the proposition. Given there are concepts of this sort and given there are propositions, no doubt there is such a set-theoretic function; but there is no information here that sheds any light on what a proposition might be, or what its components are, or how its components are related to each other to form a proposition. Such propositions might play a useful role in being the values of certain functions, but there is no obvious role that such a proposition could play when someone believes that Mexico is to the south of Canada, and there is no sense in which someone could be said to believe such a proposition. In fact, this interpretation is quite consistent with a number of possibilities, that propositions do not have components, mere points in Platonic space, or that they have unknown components, for example; but it is equally consistent with propositions being Russellian propositions.

Now it cannot be pretended that the theory of Platonic propositions due to Strawson and Bradley and Swartz is popular or well known. Its significance lies in the fact that in some ways it is quite general, or could be made so by replacing concepts by Platonic Ideas, and it makes explicit what other writers on propositions usually leave implicit. Platonic propositions require components and those components must be related to each other in some way, and the components and structure of a proposition must

reflect the components and structure of a sentence that expresses it. This theory has all this. There are two possible ways a Platonic proposition can be related to the relevant concepts, two possible interpretations of the Strawson–Bradley and Swartz theory, namely, that the concepts are components of the proposition, or the concepts are mapped into the proposition. But both these possibilities have been found wanting.

There are further difficulties about Platonic propositions that concern the nature and role played by Platonic concepts. A concept of a particular is an haecceity – in the Bradley and Swartz theory apparently a quidditative haecceity, and there are well-known difficulties in explaining what sort of thing that is, and less noticed difficulties in explaining what role it plays in a person thinking of a particular. For when a person believes a predicative proposition, the person is thinking about a certain particular, not, of course, about an haecceity. If there were Platonic propositions, then that haecceity would have to play some *essential* role in a person's thought about the particular associated with the haecceity. But it is difficult even to imagine what that role might be.⁶³

7.6 IMMANENT RUSSELLIAN PROPOSITIONS

A Russellian proposition has as components the particulars that the proposition is about and the relation that is thought of them. Although there is a sense in which it is a unit, the person who thinks the proposition does not enter into a two-place relation with that unit; rather, the subject enters into a relation with the particulars and in different way with the relation. While a Platonic proposition would have to be *about* certain things in the world, perhaps in the same way a sentence would be about them, a Russellian proposition is not about its components in the way a sentence is about certain things in the world, but in the sense that they who think the proposition think about the components. A Russellian proposition carries a sort of intentional shell with it.

The Russellian view of propositions is obviously existentialist, because a Russellian proposition exists only if the particulars and relation exist. A thought that purports to be about particulars when there are no such

63 In the same way that there is both a linguistic and a compositional approach to facts, there are also two approaches to haecceities. Some people say that there must be such things for certain philosophical purposes; others start by considering what the components of haecceities could conceivably be: universals, particulars, or what have you. The compositional approach is obviously not promising, and the linguistic approach does what all linguistic approaches do: it infers the existence of some entity from the existence of a piece of language.

particulars does not involve a Russellian proposition, since there is no such Russellian proposition; and a thought that purports to think a relation of certain particulars when there is no such relation does not involve a Russellian proposition, since, again, there is no such Russellian proposition. However, one of the difficulties for the Russellian view of propositions is explaining what is meant by saying that there is a Russellian proposition. The Russellian view of propositions is an Aristotelian or immanent theory, and to make sense it should draw a close parallel between propositions and universals. For example, we should say that a proposition occurs or is instantiated when someone believes it; and we should say that a proposition is one thing that can occur many times, and what is believed by one person is the same as what is believed by another person or, indeed, any number of persons.

With universals there is no obvious connection between any one instance and the “existence” of the universal, from which it follows that there is no obvious connection between all the instances of the universal and the “existence” of the universal itself. Among immanent realists, however, there is a division of opinion about uninstantiated universals. Some take the view that it is true to say that there is a universal, or that a universal “exists”, even when it is not instantiated; others follow Armstrong in denying the existence of uninstantiated universals, but nevertheless think that it is permissible to talk about possible universals. The difference here may not be a substantial one: where some are prepared to recognize uninstantiated universals, their opponents speak of possible universals where they would not be prepared to talk about possible particulars. The apparent difference in doctrine may reflect no more than different ways of using the term ‘existence’ as applied to universals. For Armstrong a universal exists only if it is instantiated – known as ‘the instantiation requirement’, which provides an obvious way of regarding an existing universal as being among the actual. It also ensures that the term ‘existence’ be univocal; in other words, it ensures that there is only one mode of existence. The main conceptual difficulty with this position is that instantiation for universals and existence, whatever it is applied to, are distinct notions, so that all the instantiation requirement could ever do is link them, and that merely by stipulation.⁶⁴ On the other hand, the

64 For a discussion of the instantiation requirement and what it is for a universal to exist, see Chapter 4, n. 52.

main conceptual difficulty for those who accept uninstantiated universals is that they appear to introduce two modes of being.⁶⁵

Although Russellian propositions are not, strictly speaking, universals, they function in many ways like universals. In the same way that a universal can have a property (a second-order property) but an instance of a universal cannot have a property – since immanent realism does not recognize such things – so also the properties “true” and “false” are predicated of propositions and not of proposition instances. This explains the fundamental fact that several people can believe the same thing and they all believe what is true, on account of believing the same thing. Generally speaking, whatever work can be done by Platonic Forms can be done equally well by universals, and whatever work was expected of Platonic propositions also can be done equally well by Russellian propositions.

Uninstantiated Russellian propositions exist in a way similar to the way uninstantiated universals exist. In fact, it is easier to believe in uninstantiated Russellian propositions than uninstantiated universals, because Russellian propositions are constructions out of particulars and universals. This should at least give us enough predicative Russellian propositions for most purposes.

Russellian propositions can have components that they share in the same way that sets that have common members can also be distinct sets. The propositions that the earth is round, that the earth is flat, and that the earth is a planet are different propositions with a common component, namely, the earth, which shows that Russellian propositions are not really distinct from each other. But it is possible to quantify over sets and similarly possible to quantify over Russellian propositions. Something similar would be true of Platonic propositions, since they also must have components, and each component would be a component of many propositions. For example, the Idea or concept of the earth would be a component of the proposition that the earth is flat, and of the proposition that the earth is round, and so on. In this way Platonic propositions are also in a sense constructions and not a series of really distinct real entities. In the light of this observation it is difficult to make sense of the idea that Platonic propositions are actually assembled.

65 If existence for particulars is expressed in some way by using the existential quantifier, or has some connection with the existential quantifier, then perhaps a case can be made for particulars and universals having different modes of existence.

The Correspondence Theory and Complex Propositions

8.1 COMPLEX PROPOSITIONS AND COMPOUND PROPOSITIONS

Besides predicative sentences there are complex sentences such as the compound sentences of propositional logic, which have sentences as components, the quantified sentences of predicate logic, and other sentences, such as existence sentences and identity sentences.¹ These sentences differ in form.² There are also sentences that are necessarily true, such as sentences about determinate exclusion, that a plane figure cannot be square and circular, for example, as well as the familiar theorems of formal logic.³ These sentences differ in status from those previously mentioned. I have spoken here about sentences, because it is easier in most of these cases to talk about sentences, although I still maintain that propositions are the primary truth bearers. In the second chapter a defence was offered of

1 I am grateful to Susan Haack for comments on this chapter.

2 Davidson gives a list of additional sentences that are problematic because we do not know their logical form; see “Truth and Meaning”, pp. 35–36: “. . . we do not know the logical form of counterfactual or subjunctive sentences; nor of sentences about probabilities and causal relations; we have no good idea what the logical role of adverbs is, nor the role of attributive adjectives; we have no theory for mass terms like ‘fire’, ‘water’ and ‘snow’, nor for sentences about belief, perception and intention, nor for verbs of action that imply purpose.”

3 Wittgenstein in the *Tractatus* seems to have given the correct account of the truth of logical propositions, ‘truth’ here being a sort of courtesy title: “The proof of a logical proposition does not so much prove its *truth* as prove *that it is a logical proposition, i.e. a tautology*. It tells one that by a series of transformations upon symbols in accord with certain rules of combination one can derive a further tautology. The proof tells one something about the *nature* of the proposition derived, not about its actually being true. For a logical proposition, a tautology, is itself *a form* of a proof, and a proof of such a proposition shows that it *is* a form of a proof (not a truth about something or another).” Hacker, *Insight and Illusion*, p. 49.

the thesis that the predicate 'true' should mean the same thing for all the different kinds of sentence and proposition that it applies to. Truth is a property of a sentence or proposition that is determined by the facts, or by how things are, for which the truth of predicative sentences and propositions, consisting in simple correspondence, is the paradigm case and, indeed, the foundational case. And the way in which the facts, or how things are, determine the truth of truth-functional sentences is a paradigmatic case of the extension of the notion of truth to non-predicative sentences. For each of the different types of sentence and proposition, there is a characteristic way in which the facts, or how things are, determine the truth of a sentence; or it could be said there is a characteristic way in which a sentence or proposition corresponds to the facts or the way things are. But truth is the same property in each case. The aim of this chapter is to outline a general account of complex sentences and the propositions they express and what makes them true that is consistent with my metaphysical position and the accounts given of predicative sentences and predicative propositions, though it makes no attempt to deal with all the different types.

My metaphysical assumption is that the world, that is, the paradigmatic spatio-temporal world, is a world of particulars that have properties and stand in relations to one another, so that the basic truths about the world are predicative in nature, and all other truths are dependent upon them in some way. There is a sense in which, for example, the standard logical connectives do not create new truths but merely rearrange the basic ones, so that nothing needs to be added to this ontology to account for what makes complex sentences true. Although complex sentences are made true by how things are in the world, very often in well-understood ways, they do not correspond to the world in the strict sense; only predicative sentences and propositions do that. My claim is not that all complex sentences are truth-functions of predicative sentences but, rather, that what makes complex sentences true are particulars possessing properties and standing in relations to each other, and that there is no need for anything else. And if the world were a world of facts, then complex sentences would be made true by atomic facts and by atomic facts alone.

I suggest that in general there are three distinct things: (1) the proposition expressed by a complex sentence, (2) the truth conditions for sentence and proposition, and (3) what it is about the world that makes them true.⁴

4 For the general notion of truth conditions, see David Lewis, "General Semantics", pp. 173–74. For Lewis, "A meaning for a sentence is something that determines the conditions under

This threefold distinction, which is characteristic of complex sentences, can be used to show that what it is about the world that makes complex sentences and propositions true is particulars having properties and standing in relations to one another. Propositions, truth conditions, and truth makers are, of course, related. Understanding the proposition expressed by a complex sentence involves understanding its truth conditions; but, equally, understanding the truth conditions for a conjunctive sentence, for example, involves understanding conjunction as it appears in conjunctive propositions.⁵ And then understanding the truth conditions for a proposition enables one to identify what would make it true in a given situation.

A complex sentence, such as a universally quantified one or a conjunction, typically contains an irreducible element, such as ‘all’ or ‘and’; and these elements and others are also likely to appear in its truth conditions, in other words, in the general description or explanation of what it is about the world that makes sentences of that type true.⁶ Because of irreducible elements such as these, complex sentences do not admit of unified treatment. Conjunction as it is found in ordinary thought and ordinary language, for example, is such an irreducible element, and the way in which conjunction itself occurs in the statement of the truth conditions for a conjunctive sentence, is such that it is not possible to replace a conjunctive sentence by its truth conditions. But nothing in the world corresponds to irreducible elements like these, as Russell, for example, was tempted to suppose, provoking an adamant denial from Wittgenstein.⁷

Though there is in general a distinction between the proposition expressed by a sentence, its truth conditions, and its truth makers, there is no need to claim that each and every sentence that can be constructed expresses a proposition that can be regarded as a unit in the way that a

which it is true or false. It determines the truth value of the sentence in various possible states of affairs, at various times, at various places, and for various speakers, and so on.” William Lycan takes issue with Lewis and argues that there is a distinction between the meaning of a sentence and its truth conditions. “Semantic Competence and Funny Functors”. According to Bigelow, giving truth conditions is a matter of showing how the truth of a proposition supervenes upon the truth of atomic propositions. *The Reality of Numbers*, p. 133.

5 See Section 8.2 of this chapter.

6 Frege, in “Function and Concept,” says that the sign ‘ $(x)f(x)$ ’ (though he uses his own symbol) is “to mean the true when the function $f(x)$ always has the true as its value, whatever the argument may be”; in other words, the proposition expressed by the sentence ‘ $(x)f(x)$ ’ is true when the propositions formed using the propositional function $f(x)$ are true for all values of x .

7 For Russell’s views, see Section 8.7, and for Wittgenstein’s, see Appendix 8.1.

conjunctive proposition, for example, is a unit and is believed as a unit. For some sentences there may be no proposition expressed in this sense, merely truth conditions and truth makers. It would, in fact, be easy for a logician to construct a complicated compound sentence that had truth conditions, but which did not express anything that could be believed in the sense of being held together in the mind as a unit. There would, however, be beliefs about such complicated sentences that concerned their truth conditions. The issue of what proposition the many different types of complex sentence express is often quite difficult, as the familiar example of universal quantification shows.

Wittgenstein in the *Tractatus* gave a unified account of the truth conditions and truth makers for both compound sentences and atomic (i.e., predicative) sentences; and for atomic sentences, though not for compound sentences, he also gave an account of what an atomic sentence says. In contrast, Russell's theory of belief is conspicuously confined to predicative propositions.⁸ What we should like ideally is a unified account of predicative and complex sentences as well as predicative and complex propositions. Because complex propositions are not predicative in nature, it could be claimed that Russell's theory of belief does not apply to them, thereby providing an answer to the standard objection that the theory cannot be extended to non-predicative propositions – in the nature of the case there is no reason to think it should apply to them. On the other hand, though complex propositions are not predicative in nature, they can often be understood as being about certain units that play a role at least analogous to that of subjects of predication, so that a theory analogous to Russell's theory may be possible. However, while I entertain that possibility and make some suggestions below as to how it might proceed, I do not develop theories of that kind in any detail.

Frege understood compound propositions in terms of saturated "parts", which are simple or compound propositions, and unsaturated "parts", which are the logical constants. The word 'and' that is part of a sentence signifies something doubly unsaturated in the realm of sense

8 My attention was drawn to this contrast by John Watling, *Bertrand Russell*, pp. 101–2. When in "Logical Atomism" Russell gave an account of how complex sentences correspond to facts, he said very little about the nature of the propositions that complex sentences express. Nevertheless, he still held that beliefs, in the sense of acts of belief, were the primary truth bearers, and he preserved some, but by then aporetic, commitment to his multiple relation theory of belief. He maintained his earlier denial that there are propositions in the sense of independently existing entities (pp. 223 and 226) and maintained his earlier affirmation that belief facts are truth bearers (p. 227).

that is also a function.⁹ This means that the word ‘and’ has a sense even though it does not refer to anything, and its sense is a function that takes two arguments (i.e., it is doubly unsaturated), mapping two propositions into a single proposition. I claim that this view can account for both the operator-like nature of logical constants and logical equivalences involving logical constants mentioned by Wittgenstein in the *Tractatus*, despite the fact that he regarded his view and Frege’s function view as opposed to one another. Wittgenstein is right that the logical constants are not a type of relation, as had been suggested in the past,¹⁰ but it appears that they are a type of function, as can be seen from the discussion of the difference between Wittgenstein and Frege in the appendix to this chapter.

Frege’s view may allow an extension of Russell’s theory of belief to compound propositions. In conjunctive belief, a subject in thinking a single compound proposition would think a logical function, such as conjunction, not of two other propositions as in predicative belief, but in *connection* in some way with two other propositions. The subject would not think that the two proposition were related in certain way, but would think the whole conjunctive proposition, and the sense of the word ‘and’ would contribute to whole proposition in some way. Conjunctive belief would then bear some sort of similarity to predicative belief, but it would be only similarity since each sort of belief would have its own characteristics.

In predicative belief a relation is believed of certain particulars, the relation being thought of in one way (predicative role) and the particulars being thought of in another way (as subjects of predication). Relations and properties, on account of their nature, can be thought of in two different ways, as subjects of predication and as playing a predicative role, while particulars can be thought of in one way only, namely, as subjects of predication. In some compound beliefs, such as conjunctive belief, propositions appear to play a role rather like that of logical subject – it is as though the subject (of the propositional attitude) believes conjunction in connection with the propositions.

8.2 PROPOSITIONS AS SUBJECTS OF PREDICATION

A compound proposition, such as a conjunction, is a unit in the sense that it is a proposition in its own right, one with two component propositions.

9 See Frege, “Compound Thoughts”, p. 393, and “Negation”. For Frege, the realm of sense is the third realm.

10 Ramsey, “Facts and Propositions”, p. 48, cites Chadwick, “Logical Constants”.

Frege explained that a compound proposition was a unit in the sense that the compound proposition as a whole is true or false; the compound proposition as a whole is that to which assertoric force or interrogative force is attached; and the compound proposition as a whole is the object of judgement. It is the unasserted propositions that are conjoined, whereas it is not possible to conjoin acts of judgement.¹¹

Quine, on the other hand, explained a conjunctive proposition in terms of what looks like a conjunction of affirmations, which would, in effect, be explaining conjunction in terms of conjunction: “Instead of affirming each of several statements we can, equivalently, affirm a single statement which is known to logicians (in contrast to grammarians) as the conjunction of the given statements.”¹² Quine’s approach would be consistent with a same-level interpretation of compound propositions, according to which they are about the same things that their component propositions are about, which is plausible enough applied to conjunctions but much less plausible applied to disjunctions. The alternative interpretation is the second-level interpretation, according to which a compound proposition is about its component propositions, which are then analogous to subjects of predication. For the truth conditions there are also the same two interpretations.

The difficulty with the second-level interpretation is that the sentences ‘ p ’ and ‘ $p \ \& \ q$ ’ are usually supposed to be in an object language, and it is usually supposed that the sentences in the metalanguage are about these sentences. If this standard approach were transferred to the propositions that the sentences of logic are supposed to express, the propositions expressed by the sentences ‘ p ’ and ‘ $p \ \& \ q$ ’ would be on the same level, whereas propositions about these proposition would be on another level. This transference could be motivated by the common intuition that a proposition is a kind of eternal sentence. The difficulty, of course, is that if ‘ p ’ expresses a predicative proposition, it is obviously about the world, whereas the suggestion that the proposition expressed by ‘ $p \vee q$ ’ is about the world is very much less than obvious. But what propositions are about is irrelevant to logic; indeed, whether the components of a compound proposition are predicative propositions is of no importance. This itself is some motivation for regarding compound and non-compound

11 Frege, “Compound Thoughts”, p. 391–93.

12 Quine, *Methods of Logic*, p. 2. See also Quine, *Word and Object*, pp. 57–58, for what Hintikka calls Quine’s attempt “to give a kind of behavioristic foundation to propositional logic”; Hintikka, “Quine as a Member of the Tradition of Universality of Language”, p. 167.

propositions as being on the same level. However, I do not see why the customary use of the distinction between object language and metalanguage could not be preserved for its appropriate domain of application, namely, the formal study of logic and language, while, when considering the propositions sentences express, it could be maintained that some sentences in the object language express propositions that are about the world and some express propositions that are about propositions that are about the world.

In his discussion of Wittgenstein's account of compound sentences, Max Black considers the two corresponding possible interpretations of the truth tables.¹³ They are in effect two possible ways in which the truth table expresses the truth conditions for a compound sentence. In the case of conjunction, ' $r = 'p \& q'$ ', the second-level, or metalinguistic, interpretation of the truth table for conjunction is:

' r ' is true in case ' p ' is true and ' q ' is true; and false in case ' p ' is true and ' q ' is false; and false in case ' p ' is false and ' q ' is true; and false in case ' p ' is false and ' q ' is false.

According to this interpretation, "the truth table expresses the sense of r by spelling out the conditions in which r will be true or false".¹⁴ It interprets ' r ' as being about the elementary sentences ' p ' and ' q '.

According to the same-level interpretation of the truth table for conjunction, r is equivalent to, or the sense of ' r ' is given by:

p and q ; but not- p and not- q ; and not not- p and q ; and not not- p and not- q .

On this interpretation, there is no reference to the sentences ' p ' and ' q ' or to the properties true and false; it regards ' r ' as being about the very same objects that ' p ' and ' q ' are about.

Tractatus 5.141 says that sentences that mutually imply each other are the same, and from this Max Black infers that what is expressed by ' p is true' must be the same as what is expressed by ' p ', since they are true under the same conditions. This is, of course, precisely what the redundancy theory of truth takes as the basic fact about the use of the predicate 'true'. Black concludes that Wittgenstein, to be consistent, should adopt the same-level interpretation, though he observes that the second-level interpretation "seems to answer to Wittgenstein's intentions".¹⁵ The final position of the

13 *Companion*, pp. 216–18.

14 Cf. *Tractatus*, 4.431.

15 *Companion*, p. 216.

Tractatus involves the rejection of a metalanguage and, therefore, rejection of all language about sentences and what they express, though before that stage is reached and the ladder is kicked away, there is, as is well known, plenty of talk about sentences and what they express. The middle portions of the *Tractatus* are dominated by the view that sentences that mutually imply each other are the same, but equally many of the propositions of the middle *Tractatus* are metalinguistic in character. The same-level interpretation of Wittgenstein's account of complex sentences could be described as a functional account, in the sense that it says how the logical connectives function in language while avoiding saying anything about sentences and truth.¹⁶ It should be added that this does not imply that the rules that govern the use of the logical constants are purely conventional (3.342).

I regard the second-level interpretation of the truth tables as right because I regard it as more plausible to suggest that the propositions expressed by compound sentences in general are about propositions rather than about the world. If compound propositions are about propositions, then the truth conditions for compound propositions should also be phrased in terms of propositions.

But, contrary to what Wittgenstein appears to suppose in the *Tractatus*, truth tables are not the only conceivable way that logical connectives can be understood. Susan Haack says that one's understanding of the logical connectives must derive in some way from the following "levels":

- (i) the axioms/rules of inference
- (ii) the formal interpretation (matrices, i.e. truth tables)
- (iii) the ordinary language readings of (i)
- (iv) the informal explanation of (ii).¹⁷

A system of axioms presupposes some primitive terms that are given no interpretation beyond what the axioms say of them. Then a judgement needs to be made that something fits those axioms, and of course several different types of thing could fit a given set of axioms. For example, many people believe that the S5 system of modal logic expresses in a formal way our philosophical intuitions and understanding of logical necessity and possibility, while S4 does not, though it is formally similar and equally acceptable from a formal point of view. Similarly, although

16 And although truth and falsehood are not objects, nor even properties, and sentences are not names, there is nevertheless talk of truth-functions.

17 Haack, *Philosophy of Logics*, p. 30.

axioms (or rules of inference) may help explain our understanding of the logical connectives, their ordinary language readings (iii) are in some way more fundamental, since we have to judge that axioms adequately represent our ordinary logical intuitions. However, part of the importance of the axiomatic approach is that the logical notions of ordinary thought need tidying up. Strawson thought that conjunction and negation were the least misleading of the logical constants, and that it is really only the ordinary notion of conjunction that is not in need of refinement.¹⁸ Starting with conjunction and with only slightly refined ordinary notions of negation and disjunction, it is possible to develop a logical system based on intuitively obvious rules of inference that show, for example, the need for the less than intuitively obvious material conditional.¹⁹ It takes some training in logic before it is possible to believe a material conditional. Standard propositional calculus, however presented, always makes use of the material conditional, the introduction of which is justified by the logical notions of ordinary thought and intuitively obvious rules of inference, which justification is made explicit in natural deduction approaches to logic.

The formal interpretation of the logical connectives in terms of the truth tables (ii) is also in need of interpretation in terms of ordinary thought and ordinary language. Each of the interpretations given by Black of the truth table for conjunction makes use of the ordinary notion of conjunction, and the second-level interpretation also makes use of the notions of truth and falsity. These considerations show the philosophical priority of the logical notions of ordinary thought and language, or at least the priority of philosophically refined ordinary notions.

If a sentence has a truth value only on account of expressing a proposition, then it must be the conjunction that joins propositions that explains the conjunction that joins sentences, and not the other way round.²⁰ Although rules can be given for combining sentences, it is what is expressed by sentences that explains the rules for sentences, rather than the other way round. The symbol for conjunction that combines sentences and obeys certain rules is such that a conjunction of sentences expresses a conjunction of propositions. Moreover, what makes a conjunctive proposition a unit is that it can be believed as a whole by a person, and part of that is that it is possible, while maintaining consistency, to assign a truth

18 Strawson, *Introduction to Logical Theory*, p. 78.

19 As in natural deduction systems; see Lemmon, *Beginning Logic*, for an elementary example.

20 Cf. Frege, "Compound Thoughts", p. 393.

value to the proposition as a whole. If a conjunctive proposition is a single proposition capable of being believed as a unit by a person, and since a conjunctive proposition has two other propositions as components, it appears that Frege was on the right lines in suggesting that conjunction was something like a function that took propositions as arguments. Ordinary-language notions of conjunction and disjunction are distinct from their associated truth-functions or truth tables, even though understanding the ordinary-language notions necessarily involves understanding the rules of inference, Susan Haack's first level.

The danger here lies in reifying a connective such as conjunction and turning it into a relation. Of course, those who believe in conjunctive facts, such as the recent Armstrong and, curiously, the early Wittgenstein, could find this a reasonable suggestion, at least for conjunction. If your ontology includes facts as entities, then it makes sense to suggest that they are actually conjoined in some way; the difficulty lies with the other logical connectives, which are not so easy to understand in this way. On the other hand, if your ontology does not even include facts, there is no possibility of regarding even conjunction as a relation.

Unlike relations, logical connectives do not occur, but they are like particulars, properties, and relations in that they can be thought of as subjects of predication; and they can be thought of in a way very similar to the predicative way in which a universal can be thought of, though it would be better to speak of this role as a "function role" rather than a predicative role. In our discussion of facts we noted a distinction between a relation and a way, a distinction that many people appear to invoke, though they invoke it at different stages in their thought. Perhaps a logical connective is in some sense like a "way".

According to this understanding of the logical connectives, logically equivalent compound sentences that make use of different logical constants express different propositions, though they have the same truth conditions. The truth conditions of a sentence or proposition spell out the conditions under which the sentence or proposition is true, and they are naturally metalinguistic in character. That truth is a metalinguistic property is essential to this interpretation of the truth tables.²¹ Similarly, the explanation of negation that is given in Sections 8.4 to 8.6, which does not involve a truth table, is metalinguistic in character and makes use of truth as a metalinguistic property.

21 Cf. Haack, *Philosophy of Logics*, p. 129, and Strawson, *Introduction to Logical Theory*, p. 67.

It is commonly said that a conjunctive sentence is a truth function of its component sentences. More precisely, it is said that conjunction in logic is a truth-functional sentence-forming operator on sentences. This means that given any two sentences ‘ p ’ and ‘ q ’, a third sentence can be formed, ‘ $r = p \ \& \ q$ ’, whose truth value is completely determined by the truth values of ‘ p ’ and ‘ q ’. There are two things here. There is the mapping of a pair of sentences into a single sentence, which is indeed a set-theoretic function, and there is also the rule for determining the truth values of that single sentence.²²

What can be said about sentences can also be said about the propositions that they express. Conjunction in logic is a truth-functional proposition-forming operator on propositions. There is the mapping of a pair of propositions into a single proposition, which is, indeed, a set-theoretic function, and there is also the rule for determining the truth values of that single proposition. The function that maps propositions into propositions is the more important, because it explains the function that maps sentences into sentences.

There is no precise analogy with algebra here, despite the fact that formal logic is often compared with ordinary algebra and conjunction has been compared to multiplication.²³ In algebra, the symbol ‘ \times ’, thought of as a function, maps a pair of numerals into a single numeral, while the function \times maps a pair of numbers into a single number. Following this analogy, the symbol ‘ $\&$ ’ in logic should refer to a function that takes as arguments and values the things that sentences refer to. Frege, in fact,

22 In set theory, a dyadic relation is a set of ordered pairs, and a function is a single-valued dyadic relation. Philosophers often distinguish between a function and the associated set of ordered pairs, as Frege did (see Currie, *Frege*, pp. 67–69). Frege claimed that associated with each function was a course of values (*Werthverlauf*). He did not explain what a course of values was, but gave a criterion of identity for courses of values that allows us to regard a course of values as the set of ordered sets of arguments and corresponding values. The set of ordered pairs for the function x^2 is $\{\langle 1, 1 \rangle, \langle 2, 4 \rangle, \langle 3, 9 \rangle, \dots\}$, and the set of ordered pairs of the concept *being German* (a function for Frege) is $\{\langle \text{Frege}, T \rangle, \langle \text{Napoleon}, F \rangle, \dots\}$. One reason for not identifying a function with a set of ordered pairs is that if the domain of the function includes particulars, the set of ordered pairs can vary.

23 Whitehead and Russell called the conjunction of two propositions their logical product, and wrote it as a dot in order to suggest multiplication. See Whitehead and Russell, *Principia Mathematica*, vol. 1, p. 6. Alonzo Church drew a very close analogy between algebra and logic and argued on that basis that Frege had a case for maintaining that sentences are names of truth values. See Church, *Introduction to Mathematical Logic*, pp. 24–25.

claimed that though sentences expressed propositions (thoughts), they have truth values as their references, so that at the level of references, & should map a pair of truth values into a single truth value.²⁴ The set of ordered pairs associated with conjunction considered as a function would then be:

$\{ \langle \langle T, T \rangle, T \rangle, \langle \langle T, F \rangle, F \rangle, \langle \langle F, T \rangle, F \rangle, \langle \langle F, F \rangle, T \rangle \}$.

But whether T and F be regarded as objects or properties, this set of ordered pairs does not represent any significant function that relates truth values. People often speak of something “being true and false”, but that usage does not help here, and it certainly makes no sense in any context to speak of “the true and true”. Whether we consider the set of ordered pairs involving truth values or the truth table itself, both merely represent a rule for assigning truth values to compound propositions, a rule that is partially constitutive of the meaning of the logical connective. In arithmetic, multiplication is a way of combining the things the symbols refer to, namely, numbers. In logic, conjunction is a way of combining propositions and can be regarded as a way of combining sentences. But however truth values are thought of, it does not make any sense to suggest that conjunction is a way of combining truth values.

8.4 NEGATION AND POSITIVE AND NEGATIVE ENTITIES

The predicative sentence ‘*Fa*’ is made true by the fact of *a*’s possessing *F*, however a fact is understood – compositional view, linguistic view, or

24 For Frege, a logical connective, such as conjunction, is a function that maps a pair of propositions into a single proposition. Although in “Compound Thoughts”, Frege mentions only the level of sense and the level of symbols, it was characteristic of Frege in his earlier writings to think of three levels: the level of symbols, the level of senses, and the level of references (cf. letter to Husserl of 24 May 1891, *Philosophical Correspondence*, p. 63). From this point of view, if there were a function at the level of senses involving propositions, there would also be a corresponding function at the level of references. Since the references of sentences are truth values, the function corresponding to a logical connective at the level of truth values should map pairs of truth values into single truth values. This would give us a truth-function in the most literal sense. However, in “Compound Thoughts” (p. 393), he mentions only two levels: “It is really in the realm of sense that unsaturatedness is found, and it is transferred from there to the symbol.” In “Thoughts”, there is no mention of truth being an object. He explains a thought as something for which the question of truth can arise (pp. 351–54); he denies the correspondence theory of truth; and says that the word ‘true’ looks like the word for a property and then claims that truth is *sui generis* and indefinable.

just how things are understood informally. In this paradigmatic case the fact that is the truth maker does indeed entail the truth of the sentence, as the relevant facts do in the case of conjunctive sentences, disjunctive sentences, and positive existentially quantified sentences. A fact does not entail the truth of a sentence in the sense of logical inference, since logical inference is a relation between propositions, and can be regarded as a relation between sentences. A fact entails the truth of a sentence in the fundamental sense that the existence of the fact requires that the sentence be true.

Difficulties arise in the case of negative predicative sentences, negative existentially quantified sentences, and universal sentences, because in the first two of these cases it is not obvious that there is a truth maker, in the sense of something in the world that entails the truth of the sentence, and in the last case it is claimed that the truth maker includes the truth maker for a negative existentially quantified sentence.

My metaphysical assumption is that the world, that is, the paradigmatic spatio-temporal world, is a world of particulars that have properties and stand in relations to one another, so that the basic truths about the world are predicative in nature and all other truths are dependent upon them in some way. My aim, ideally speaking, is to state the truth conditions for all types of sentence in such a way as to make it clear that their truth makers are confined to predicative facts.

Given that the world is a world of particulars that instantiate properties and relations, what are the truth conditions for negative predicative propositions? Do we need to add anything to our ontology to account for what makes negative predicative propositions true? And is a negative predicative proposition about the same things the related positive predicative proposition is about?

The simplest kind of negated proposition is a negative predicative proposition. Such a proposition could be made true by a particular possessing a negative property: the proposition that the Taj Mahal is not blue would be made true by the Taj Mahal possessing the property of not being blue. Or it could be made true by a negative fact: the proposition that the Taj Mahal is not blue would then be made true by the fact of “the Taj Mahal’s not being blue”, which could be understood either as having a negative property as a component, or as having a positive property as a component together with some other component corresponding to negation. It was the difficulty of dealing with true negative propositions that led Russell to suggest, if only tentatively, that there were negative facts that were their truth makers, a suggestion that nearly caused a riot

at Harvard.²⁵ Although neither is really ontologically desirable, negative properties are probably preferable, ontologically speaking, to negative facts. I present arguments against negative properties and then describe a way in which a true negated, predicative proposition is made true by a particular possessing positive properties, thereby removing any need for negative properties or negative facts.

A negative property is the property of not having a certain other property. The issue concerning negative properties is whether there are such things: when we say that the world is a world of particulars that instance properties and stand in relation to each other, do those properties and relations include negative properties and relations as well as positive ones? For negative properties, negation modifies the property directly, in other words, negation should be understood in this case as internal negation, and be represented by ‘ $(-F)(\quad)$ ’, whereas negation understood as external negation modifies the proposition as a whole, and the property of “not being F ” would have to be represented symbolically by ‘ $-(F(\quad))$ ’. Internal negation turns a positive property into a negative property and vice versa.

A property and the corresponding negative property are incompatible, but there are also pairs of incompatible properties that are not related by negation, such as red and blue, and red and round. The difference is that it is possible for a particular to be neither red nor blue, whereas it is not possible for a particular to be neither red nor not-red; it must be one or the other, which Russell calls logical incompatibility.²⁶ Red and blue are merely incompatible, they are not logically incompatible. Red and not-red, on the other hand, are both incompatible and logically incompatible. This shows that it is not possible to explain negation in terms of incompatibility. The notion of logical incompatibility – it is not possible for a particular to be neither red nor not-red – however, is merely another way of presenting negation, so negation cannot be explained in terms of logical incompatibility, either.²⁷

If there were negative properties, then positive and negative properties would exist in pairs: for each positive property, such as “being round”,

25 Russell, “Logical Atomism”, p. 211. The *Tractatus* avoids negative facts by regarding negation as an operator (5.253). Prior suggested that a negative fact would have to have the corresponding falsehood as a component, where a falsehood would be something like “that Charles I died in his bed”, which would have to be supposed to have some sort of existence “out there” (Prior, “Negation”, p. 460).

26 Russell, *An Inquiry into Meaning and Truth*, p. 82.

27 Wittgenstein, Russell, Carnap, Ayer, and others have found mere incompatibility puzzling. There is a tendency to deny that there is such a thing at a fundamental level.

there would be a single, corresponding negative property, namely, “being not round”. If which properties there are were determined linguistically, with each predicate that is normally regarded as being true of some particular referring to a genuine property, then it might be that properties exist in pairs, each member of a pair being the negation of the other member, but with no clear sense in which one is the positive property. Mark Sainsbury appeals to this possibility in his criticism of Russell.²⁸

But from the point of view that which things are real, including which things are genuine properties, is determined by causal considerations and by science, negative properties do not appear very plausible. The basic properties of physics, that most basic of sciences, are the simple shapes, masses, charges, and so on, which are positive properties, so that at least in some cases it is clear which are the positive properties. Given the pair of properties, “being round” and “not being round”, it is clear that “being round” is the positive property, possessed by the object in a way in which it does not possess the property of “not being round”. The issue would not be so clear, however, with properties such as dispositional properties, though the issue would depend on how you understand dispositional properties. The causal powers associated with the positive property of “being round” are clear, while it is not clear even whether there are any causal powers associated with “not being round”. How would the causal powers of “not being round” differ from the causal powers of “not being cubical”? It seems clear in this case that the positive property determines the causal powers.

In respect to shape, a simple material object possesses only one positive determinate property, and only one determinable shape for each level, however many there may be of these. The theory of determinates and determinables requires, in effect, that both determinate properties and determinable properties be positive. In contrast, a material object possesses a non-countable infinity of negative properties associated with shape – it is a non-countable infinity since some shape properties are indexed by the real numbers. The disparity between the vast number and the extraordinary diversity of the negative properties having to do with shape possessed by a material object and the limited number of causal powers actually possessed by the object shows that negative properties do not contribute to the causal powers of an object. It is reasonable to

28 Sainsbury, *Russell*, p. 222. Cf. Ayer, “Negation”, p. 61: “the main tendency of the argument [of his paper] has been to reduce the distinction between affirmative and negative statements to a matter of emphasis.”

suppose that the limited number of causal powers of an object must be related to its limited number of positive properties.

Armstrong gives a number of reasons for rejecting negative properties.²⁹ When a negative predicate is true of a number of particulars, it is implausible to suggest that the predicate applies because the particulars are identical, or even similar, in some respect. The admission of negative properties leads to the conclusion that every particular has exactly the same number of properties, since it is either F or not- F , which is implausible on a realistic view of properties. Armstrong also appeals to causality: a property should be such that it at least makes sense to attribute causal powers to a particular in virtue of possessing that property, but it is difficult to see how an absence of a property could endow anything with a causal power.

If we admit negative properties and conjunctive properties, then we must also admit disjunctive properties, but no sense can be made of disjunctive properties.³⁰ If the predicates ' P ', ' $\neg Q$ ', ' Q ', ' $\neg Q$ ', and ' $P \& Q$ ' signify genuine properties, then ' $\neg P \& \neg Q$ ' signifies a genuine property, and so does ' $\neg(\neg P \& \neg Q)$ '. But the property signified by ' $\neg(\neg P \& \neg Q)$ ' is the same as the property signified by ' $P \vee Q$ ', which is a disjunctive property. This last objection was suggested to Armstrong by Michael Tooley.

8.5 NEGATIVE PREDICATIVE SENTENCES, THEIR TRUTH CONDITIONS AND TRUTH MAKERS

However, it is not obvious how to explain the truth conditions of true negative, predicative propositions. For example, it is true that the earth is not flat, but it is not clear what it is about the earth that makes it true to say that it is not flat, and it does appear to be something about the earth itself. Armstrong shows how the truth conditions for true negative sentences can be constructed using of the notion of "counter-correspondence", a term suggested by Keith Campbell.³¹ The idea is an improvement on the language game described by Black in his discussion of the account of negation in Wittgenstein's *Tractatus*.³²

A sentence that expresses a predicative proposition, such as ' Pa ', corresponds to the world because the particular a has the property P . The

29 Armstrong, *A Theory of Universals*, pp. 23–26.

30 See Armstrong, *A Theory of Universals*, pp. 19–23.

31 Armstrong, *A Theory of Universals*, p. 27. There is no reference to Campbell's writings. Armstrong tells me that Campbell made the suggestion while commenting on that portion of Armstrong's book. See also Armstrong, *Belief, Truth, and Knowledge*, pp. 131–33.

32 Black, *Companion*, pp. 221–22.

notion of counter-correspondence is similar to that of correspondence in every respect except one. Instead of ‘ Pa ’ corresponding to the world because the particular a has the property P , we say that ‘ Fa ’ counter-corresponds to the world because the particular a has the property P , where ‘ F ’ and ‘ P ’ refer to different properties. And instead of saying that the sentence ‘ Pa ’ corresponds to the fact of “ a ’s having P ”, we say that the sentence ‘ Fa ’ counter-corresponds to the fact of “ a ’s having P ”. The conditions for counter-correspondence are in every way the same as those for correspondence with the single difference that ‘ F ’ must refer to a property F that is different from the property P .

Now let us suppose that ‘ Fa ’ counter-corresponds to “ a ’s having P_1 ” and to “ a ’s having P_2 ”, and so on for all the properties, P_1, P_2, \dots , of the particular a . In this case it is clear that a lacks F , and the sentence ‘ $\neg Fa$ ’ expresses a true negative proposition. A true negative proposition, on this account, does have a relation to the world, and we can say that it is true in virtue of a kind of correspondence with the world, but it is not the direct sort of correspondence that a sentence expressing a true positive proposition has to the world. The correspondence rule, or truth conditions, for a true negative sentence such as ‘ $\neg Fa$ ’ is: ‘ $\neg Fa$ ’ corresponds to the world, and is true, if and only if for each property P_i of the particular a , ‘ Fa ’ counter-corresponds to a ’s having P_i . The truth makers for the negative predicative sentence ‘ $\neg Fa$ ’ are a series of positive predicative facts, namely, “ a ’s having P_1 ”, “ a ’s having P_2 ”, “ a ’s having P_3 ”, and so on.

Apart from the ideas implicit in the notion of the correspondence of a sentence expressing a positive proposition, the notion of counter-correspondence merely relies on the notion of one property being different from another; it does not rely on the notion of two properties being incompatible, and certainly not on the notion of two properties being logically incompatible. But two properties are different if they are not the same, so that “difference” could be explained in terms of identity and negation. On the other hand, it could also be claimed that difference was conceptually primitive. In Section 8.9 I argue that *difference*, like *identity*, is primitive, and I also claim that identity and difference for particulars presuppose identity and difference for properties.

It is, of course, not possible to give truth conditions without making use of logical notions; these truth conditions for negated sentences make use of the idea of quantifying over the properties possessed by an object, for example. The truth conditions for negative predicative sentences do, however, give semantic correlations between sentences and the world, and they do it in the appropriate way, by explaining the truth conditions

of the whole sentence in terms of the way in which the components of the sentence relate to the world.³³ It is significant that negation enters the statement of truth conditions only in describing the relation of the sentence's predicate to the world.

We could also say that the notion of correspondence presupposes the notion of counter-correspondence. For the sentence ' P_1a ' to be true, it must correspond to " a 's having P_1 " and counter-correspond to " a 's having P_2 ", " a 's having P_3 ", and so on. In other words, the notion of correspondence that is used in the correspondence theory of truth has implicitly associated with it the notion of counter-correspondence.

8.6 THE CONCEPT OF NEGATION AND NEGATIVE PROPOSITIONS

In the absence of negative properties, it makes sense to claim that the conceptually primitive ordinary-language notion of negation is external negation, which modifies a whole proposition. If there were negative properties or negative facts, they would only account for one class of propositions involving negation, and it would still be necessary to account for other uses of negation, applied to more complex propositions, for example, which are generally understood as external negation. In fact, as Prior argues, from a formal point of view it can be maintained that there is no real distinction between external and internal negation.³⁴

Quine tries to explain negation in terms of denial: "To deny a statement is to affirm another statement, known as the *negation* or *contradictory* of the first. To deny that 'The Taj Mahal is white' is to affirm 'The Taj Mahal is not white'."³⁵ Even though ' x affirms not- p ' may be equivalent in some sense to ' x denies p ', there is not much of an explanation here unless affirming and denying are two primitive opposites, with neither being explicable in terms of the other. If they are not primitive opposites, then

33 Cf. Armstrong, *A Theory of Universals*, p. 28.

34 Prior, "Negation", pp. 458–59. Singular propositions involving definite descriptions require Russell's theory of descriptions and a scope distinction to allow for the possibility that the singular term has no reference.

35 Quine, *Methods of Logic*, p. 9. This statement is not present in the revised edition. Russell denies what Quine affirms in "Meinong's Theory of Complexes and Assumptions", p. 41. Cf. Prior, "Negation", p. 458. ' x denies p ' may be equivalent to ' x affirms not- p ', but it merely entails 'not-(x affirms p)'. Using x affirms $\neg p \rightarrow \neg(x$ affirms $p)$ and the de Morgan laws, it can be shown that x affirms $(p \vee q)$ entails $(x$ affirms $p) \vee (x$ affirms $q)$, which cannot be right.

one will be explained in terms of the other, presumably using the notion of negation; and it is difficult and unnatural to explain denial except as the affirmation of the negation of a proposition.³⁶

Frege, however, who is followed in this by Dummett, rejected the idea that assertion and denial were two different ways of judging. He argued that if there were two different ways of judging, then there would be two primitive notions of negation, a negative form of judging and a negative word for use in sentences that are not themselves asserted, whereas it would be preferable to have only one primitive notion of negation.³⁷ Even if Huw Price were right that a single utterance can be regarded as both an assertion with content p and a denial with content $\text{not-}p$, this sort of equivalence could not be used to explain the negation of content.³⁸ Price may, however, be right about ordinary language when he observes that “the sign of denial seems to function interchangeably as a force modifier and as a sense modifier.”³⁹ In contrast, Frege’s approach was to make a sharp conceptual distinction between content and assertion.

Negation cannot be defined or explained by a truth table, or by the equivalent truth conditions, for the simple reason that they make use of the notion of falsehood, and falsehood is defined in terms of negation.⁴⁰ It is characteristic of correspondence theories to start with truth and explain falsehood in terms of truth and negation. Indeed, the only account that can be given of a proposition’s being false is to say that it is not true, that it fails in its attempt to describe the world, which involves negation. Theories that posit truth value gaps must give an explanation of falsehood that is independent of the notion of truth, and it is difficult to see what that could be.

Although in many systems of formal logic, the most familiar ones, negation is, indeed, primitive, Prior concludes, after surveying a number of systems where negation is not primitive, that it is notoriously difficult to explain the meaning of substitutes for negation without using the negation familiar from ordinary language. So it appears that negation is primitive in an intuitive or conceptual sense – Prior makes a helpful distinction between primitiveness in “a convenient calculus” and “intuitive

36 Cf. Dummett, *Frege*, pp. 316–21.

37 Frege, “Negation”, pp. 384–85.

38 Price, “Why ‘Not?’”, p. 225.

39 *Ibid.*

40 Prior (“Negation”, p. 461) and Price (“Why ‘Not?’”, p. 226) agree. Ayer (“Negation”, pp. 40–42) does not; he explains negation in terms of truth and falsehood.

or conceptual simplicity".⁴¹ It appears that the most that can be said about negation is that what negation is is well known: it is a primitive notion, it is a logical constant that does not correspond to anything in the world, and has a number of formal properties, principally that a proposition and its negation cannot both be true together, and that if p is true, then not-not- p is also true.

Having suggested that a true conjunctive proposition is about propositions rather than being directly about the world, it would be natural to suggest that a true negative predicative proposition is about a proposition and not about the world. In the account given of the truth conditions for a true negative predicative sentence, it is positive predicative sentences and the positive propositions that they express that have a relation to the world, the relation of counter-correspondence. Since these relations of positive propositions to the world are grounds for saying that the corresponding negated proposition is true, and since the negated proposition itself does not have a direct relation with the world, it is reasonable to suggest that the negated proposition itself is a proposition about the positive proposition and not about the world.

It is not clear in what sense " x asserts not- p " is equivalent to " x denies p ", though they are generally assumed to be equivalent. It is plausible to suggest that any person who denies p is obliged to assert not- p also, but it is difficult to explain what sort of obligation it is. Nevertheless, it is still possible for there to be a difference, for it is possible when x denies Fa that x 's thought be about the particular a , and when x asserts not- Fa for x 's thought to be about the proposition that Fa . If the proposition expressed by 'not- Fa ' were about the world, it would be saying something about the world that involved the particular a , the property F , and negation.

I suggest that the words 'it is not the case' should be understood as a metalinguistic prefix to a sentence, in the same way that 'is true' and 'is false' are metalinguistic predicates. This suggestion is facilitated by understanding all negation in terms of external negation. 'Is true' is a

41 Prior, "Negation", p. 463. Price adopts yet another approach: he explains negation in terms of the evolution of language: "In summary, I suggest that negation be explained in terms of the primitive notion of incompatibility. Where P signals a state of affairs of a certain kind – whether an intention to act, or the obtaining of some condition in the world – $\neg P$ signifies the corresponding incompatible state. The importance of the latter signal stems from its use in marking disagreements." "Why 'Not'?", p. 228. This explanation is like Quine's in referring us to the level of assertion to explain negation at the level of content. The negation sign does not refer to anything but does have a use, and Price explains the origin of that use.

metalinguistic predicate in the sense that the sentence ' p is true' says something about a proposition. If ' p is true' were about the world, then it would have to be equivalent to p itself. According to Susan Haack:

The idea that truth is a metalinguistic predicate seems, for example, to contribute to the usual explanations of the semantics of the sentence connectives, as " $\neg p$ ' is true iff ' p ' is false', " $p \vee q$ ' is true iff ' p ' is true or ' q ' is true'.⁴²

And she points out some of the difficulties that redundancy theorists have with this issue.⁴³ The view that 'is true' is a metalinguistic predicate leads to a hierarchy of different, if not very interesting, propositions.

There are a number of difficulties with this view. For example, formal logic leads us to expect ' p ' and ' $\neg p$ ' to express propositions that are similar in status, so that if the proposition expressed by ' p ' is about the world, then the proposition expressed by ' $\neg p$ ' should also be about the world. In formal logic, it is assumed that the proposition expressed by ' p ' is the same as that expressed by ' $\neg(\neg p)$ ', ' \neg ' being analogous to the minus sign in algebra. But the double application of a metalinguistic operator should produce a proposition in a third-order language, not take us back to the object language.

Formal logic, however, is extensional in character, being concerned only with truth values, and there is no reason why it should not consider only sentences and their truth values. At various points we can translate to propositions about propositions and their truth values, but interpretation will be required. There are a number of awkward features about logic, awkward in the sense that sentences express propositions that are difficult to believe or for which it is difficult to know which proposition they express. Material implication sentences and identity sentences are examples of these. The same is true of negation. For the purposes of propositional calculus ' $\neg p$ ' is equivalent to ' p ' merely because they have the same truth value. But, in fact, in propositional calculus there is no need to say that they express the same proposition; all that is required is to say that they are equivalent in the sense that they have the same truth value.

8.7 UNIVERSAL SENTENCES

The sentence 'all swans are white' is usually understood to involve the universal quantifier, ' $(x)(Sx \rightarrow Wx)$ ', and it appears that it is made true

42 Cf. Haack, *Philosophy of Logics*, p. 129.

43 *Ibid.*, p. 130.

by each swan there is being white. At the beginning of his discussion of universal sentences in his *Lectures on Logical Atomism*, Russell says that what is asserted by the sentence ‘ $(x)(Sx \rightarrow Wx)$ ’ is the truth of all the values of the propositional function ‘ $Sx \rightarrow Wx$ ’.⁴⁴ In other words, what is asserted by the sentence ‘ $(x)(Sx \rightarrow Wx)$ ’ are the sentences ‘ $Sa_1 \rightarrow Wa_1$ ’, ‘ $Sa_2 \rightarrow Wa_2$ ’, . . . , where a_1, a_2, \dots are all the particulars in the universe of discourse, which is equivalent to asserting the sentence ‘ $(Sa_1 \rightarrow Wa_1) \& (Sa_2 \rightarrow Wa_2) \& \dots$ ’.⁴⁵ It appears from this that the truth makers for a universal sentence are a very large number of particular facts involving all the particulars in the universe of discourse; indeed, in the *Principia* it is said “But $(x).\phi x$ does not point to a single corresponding complex: the corresponding complexes are as numerous as the possible values of x .”⁴⁶

Nevertheless, a few pages later Russell denies all this, perhaps led on by epistemological considerations about how we can know that universal sentences are true: in addition to *knowing* that certain swans are white, we should have to *know* that they are all the swans that there are before we can be said to *know* that all swans are white. He may be right about knowing, since knowing that a certain swan is white is not enough for knowing that all swans are white without the further knowledge that it is the only swan in the world. Russell claims that there must be general facts over and above particular facts, because “. . . when you have enumerated all the atomic facts in the world, it is a further fact about the world that those are all the atomic facts there are about the world, and that is just as much an objective fact about the world as any of them are.”⁴⁷ The truth maker for a sentence such as ‘all swans are white’ would, on this account, be the particular facts of certain swans’ being white plus the fact of those swans’ being all the swans. The truth maker for a sentence should entail the truth of the sentence, and in a world where there is only one swan, the fact that that swan is white does not entail the truth of the sentence ‘all swans are white’, because a further fact is required, namely, that this swan is the only swan.

44 Russell, “Logical Atomism”, p. 230.

45 A well-known logic book states that in a universe of only three objects, $(x)Fx$ is intuitively equivalent to $Fm \& Fn \& Fo$. Lemmon, *Beginning Logic*, p. 104.

46 Whitehead and Russell, *Principia*, vol. 1, p. 46.

47 Russell, “Logical Atomism”, p. 236. Russell is followed by Armstrong (*A World of States of Affairs*) and C. B. Martin (“How It Is: Entities, Absences, and Voids”). He is opposed by David and Stephanie Lewis (“Holes”) and David Lewis (“Critical Notice of D. M. Armstrong, *A Combinatorial Theory of Possibility*”), and probably by Wittgenstein of the *Tractatus*. See Black, *Companion*, pp. 281–82.

The sentence ‘these are all the swans’ is equivalent to the negative existential sentence ‘there are no other swans than these’, which, put more exactly, is ‘it is not the case that there is a swan that is not identical to one of these swans’, or in symbols ‘ $\neg(\exists x)(Sx \ \& \ \neg(x = s_1 \vee x = s_2 \vee \dots))$ ’, where s_1, s_2, \dots are all the swans.⁴⁸ The truth maker for the sentence ‘these are all the swans’ will therefore on this view be the same as the truth maker for a negative existential sentence. As Russell says, “all general propositions deny the existence of something or another”, while, as he also says, they do not assert the existence of anything, either.⁴⁹

I think that Russell is mistaken in thinking that a general fact is required, because quantification *presupposes* a universe of discourse, and quantification is a way of ranging over a *given* universe of discourse. Sentences about which particulars are included in the universe of discourse, such as, ‘these are all the particulars included in the universe of discourse’, are of a different order – they could be regarded as metalinguistic in character – and, consequently, the general facts that Russell is talking about should not be included in the truth makers for sentences in the object language, which must presuppose a universe of discourse.⁵⁰ The truth makers for a universal sentence, such as ‘all swans are white’, are not limited to the particular facts of certain swans being white, so that a fact of these being all the swans needs to be added; the truth makers for a universal sentence include particular facts about all the particulars that are in the universe of discourse, as Russell himself pointed out at the beginning of his discussion.

Given that asserting the sentence ‘ $(x)(Sx \rightarrow Wx)$ ’ is equivalent to asserting the sentences ‘ $(Sa_1 \rightarrow Wa_1)$ ’, ‘ $(Sa_2 \rightarrow Wa_2)$ ’, . . . or the sentence ‘ $(Sa_1 \rightarrow Wa_2) \ \& \ (Sa_2 \rightarrow Wa_2) \ \& \ \dots$ ’, where a_1, a_2, \dots are all the particulars in the universe of discourse, what are the truth makers for the sentence? In cases where a_k is a swan, the sentence ‘ $Sa_k \rightarrow Wa_k$ ’ is made true by

48 This formula is equivalent to ‘ $(x)(Sx \rightarrow (x = s_1 \vee x = s_2 \vee \dots))$ ’, where s_1, s_2, \dots are all the swans. According to this view, then, ‘ $(x)(Sx \rightarrow Wx)$ ’ is equivalent to ‘ $((Ss_1 \rightarrow Ws_1) \ \& \ (Ss_2 \rightarrow Ws_2) \ \& \ \dots) \ \& \ (x)(Sx \rightarrow (x = s_1 \vee x = s_2 \vee \dots))$ ’.

49 Russell, “Logical Atomism”, p. 229.

50 Evan Fales is quite right to point out that we quite often assert universal propositions without having any idea what particulars comprise the universe of discourse. I answer that this is irrelevant, because we do not have to be aware of a universe of discourse when asserting a universal proposition. A universe of discourse is presupposed, and some would be prepared to argue that there must be a universe of discourse. The existence of a universe of discourse is an externalist feature of the semantics of quantification; cognitive access to it is not required. In first-order logic the universe of discourse is restricted to particulars and excludes universals, though universals are real enough.

the swan's being white, since p 's being true and q 's being true makes ' $p \rightarrow q$ ' true. In cases where a_k is not a swan, the sentence ' $Sa_k \rightarrow Wa_k$ ' is made true by the facts that make true the sentence ' a_k is not a swan', since p 's being false makes ' $p \rightarrow q$ ' true. The sentence ' a_k is not a swan' is a negative predicative sentence, which, as we have seen in the discussion of counter-correspondence, is made true by a large number of particular facts. From this it should be clear that ' $(x)(Sx \rightarrow Wx)$ ' is true when there are no swans, and its truth makers are the truth makers for all sentences of the form ' a_k is not a swan'.⁵¹ In general, the truth makers for the sentence ' $(x)(Sx \rightarrow Wx)$ ' are very numerous, but they do entail the truth of the sentence. It follows that the sentence ' $Ws_1 \ \& \ Ws_2 \ \& \ . . .$ ' (where $s_1, s_2, . . .$ are all the swans) and the sentence ' $(x)(Sx \rightarrow Wx)$ ' have different truth makers, if there are objects in the universe of discourse that are not swans.

I do not pretend to be able to explain what proposition is expressed by the sentence ' $(x)(Sx \rightarrow Wx)$ '. In the *Principia*, Russell and Whitehead suggested that a universally quantified sentence expressed a relation of *formal implication* between two propositional functions, making the proposition expressed appear analogous to a predicative proposition about propositional functions.⁵² Formal implication is different, however, from the second-order relation of subordination between two universals, which would also lead to a kind of predicative proposition. Their suggestion makes sense because the sentence 'all swans are white' expresses the same proposition, however many swans there are; similarly, the truth conditions for a universal sentence will make no reference to the swans that there actually are. In his "Logical Atomism", Russell argued that the proposition expressed was primitive, though for reasons that we have rejected.

Finally, consider the sentence 'the set of all swans is a subset of the set of all white things'. This sentence expresses a predicative proposition about sets, which is a different proposition from that expressed by a universally quantified sentence – whatever proposition a universal sentence expresses it is not predicative and not about sets. Nevertheless, we should ordinarily expect this sentence about sets and the corresponding universal sentence to have the same truth conditions and the same truth makers. The difficulty is that the same set can be specified in two ways, as the set of all swans

51 Apparently, Russell and Bradley thought that there were difficulties when there are no swans. "Logical Atomism", p. 237.

52 Whitehead and Russell, *Principia Mathematica*, vol. 1, pp. 20–21. Cf. Church, *Introduction to Mathematical Logic*, pp. 44–45.

(in other words, the extension of the predicate 'swan') and by listing the names of each swan. Although it would be the same set in both cases, the explanation of the truth conditions would be different.

8.8 NEGATIVE EXISTENTIALLY QUANTIFIED SENTENCES

A negative predicative sentence, such as 'Socrates is not tall', is apparently made true by a specific absence, in that the property referred to in the sentence is not instantiated by the particular referred to. Although there is no single fact in the world that makes it true, it is made true by certain predicative facts as determined by the truth conditions, which make use of the idea of counter-correspondence, as explained in Section 8.5. In the light of these truth conditions, it can be said that the facts that make the negative predicative sentence true do indeed entail the truth of the sentence.

A negative existentially quantified sentence, such as 'there are no unicorns', is also apparently made true by an absence. The sentence 'unicorns do not exist' is represented symbolically by ' $\neg(\exists x)Fx$ ', which is equivalent to the universal sentence ' $(x)\neg Fx$ '. The truth conditions for this universal sentence are that all the sentences ' $\neg Fa_1$ ', ' $\neg Fa_2$ ', . . . be true, where a_1 , a_2 , . . . are all the particulars in the universe of discourse, as was explained in the section on universal sentences. The correspondence rule, or truth conditions, for one of these true negative sentence, such as ' $\neg Fa_k$ ', is: ' $\neg Fa_k$ ' corresponds to the world, and is true, if and only if for each property P_i of the particular a_k , ' Fa_k ' counter-corresponds to a_k 's having P_i . Consequently, the facts that make the negative existential sentence true do entail the truth of the sentence.

In the case of both negative predicative sentences and of negative existentially quantified sentences, we have a choice: we can either say that there is no fact, or facts, that make such sentences true directly, so that there is nothing that makes them true, or we can say that they are made true by a large number of positive facts by means of the relation of counter-correspondence. The method that makes use of counter-correspondence shows how the facts (or how the world is) entail the truth of negative predicative sentences and the truth of negative existentially quantified sentences. An absence is nothing in the world, even if it is a specific absence, and even if it is a noticeable and conspicuous absence. An absence is nothing because an absence involves no particulars, and, of course, if there are no particulars, no universals occur, either. An absence is not a

fact according to the compositional view of facts, because no particulars are involved; and for the same reason there is no fact according to the informal view of facts. It might be a fact according to the linguistic view of facts, but it is not clear that such facts are things in the world. It makes no sense to reify an absence, since it makes no sense to reify nothing. These considerations provide sufficient motivation for preferring the method of counter-correspondence.

8.9 THE PROBLEM OF IDENTITY SENTENCES

Issues concerning identity sentences have arisen at a number of points in the previous pages: the slingshot arguments make use of identity sentences, Bealer's account of propositions depends on a certain view of identity sentences, and Russellian propositions were objected to on the grounds that they cannot account for so-called scientific essentialism, where scientific essentialism depends on a certain view of identity sentences. All these make use of similar accounts of identity sentences, mainly about what they say and in what sense they can be said to be necessary, which the following pages show to be ill-founded.

Ideally, it should be possible to give an account of the type of proposition expressed by an identity sentence, the truth conditions for identity sentences, and what it is about the world that makes them true. But these issues are unusually difficult, particularly the issue of what proposition is expressed by an identity sentence, or what is said by an identity sentence, though Peter Geach and E. J. Lowe have made the helpful suggestion that a criterion of identity for a kind of entity is the truth conditions for identity sentences about entities of that kind.⁵³

In his recent book, *Logical Properties*, Colin McGinn explains the standard view of identity as follows:

It is, as Frege also said, that unique relation a thing has to itself and no other thing – period. Its logical properties are reflexivity, symmetry and transitivity. It is simply the relation x has to y when x is nothing other than y , when there is no distinction between x and y , when x is y . And when we grasp the notion of identity we implicitly understand that it admits of no qualification or variation. That is the Fregean Thesis.⁵⁴

53 See Lowe, *Kinds of Being*, pp. 9–10.

54 *Logical Properties*, p. 2. What Frege says on the first page of “Sense and Reference” is hypothetical: “Now if we were to regard equality as a relation between that which the names ‘ a ’ and ‘ b ’ designate, it would seem that $a = b$ could not differ from $a = a$ (i.e.,

The three logical properties he mentions are, of course, just the properties of equivalence relations, but when he continues by saying that there is no distinction between x and y , he implies, I think, that the crucial property of identity is that it obeys Leibniz's Law. Traditionally, Leibniz's Law is $(a = b) \rightarrow (F)(Fa \leftrightarrow Fb)$; in other words, identity entails community of properties, whereas for McGinn it is $(a = b) \leftrightarrow (F)(Fa \leftrightarrow Fb)$, which also includes community of properties entails identity, otherwise known as the identity of indiscernibles. ' $(F)(Fa \leftrightarrow Fb)$ ' says that a and b share all properties, presumably, under any view about what a property is, though it could be read substitutionally as saying that anything that can be said of a can be said of b .

McGinn argues that Leibniz's Law cannot be a definition of identity because: (1) if the properties mentioned on the right include ones based on identity, it is circular, and if they do not, the condition is insufficient, presumably because of difficulties with identity of indiscernibles; (2) it presupposes property identity; (3) any definition whatsoever presupposes the notion of identity.⁵⁵ The second reason seems right because Leibniz's Law, thought of as a definition of identity, explains numerical identity in terms of qualitative identity, which presupposes numerical identity of properties. It also makes sense to say that two non-identical objects have all their properties in common, as Wittgenstein pointed out.⁵⁶ From which it follows that the sentences ' $a = b$ ' and ' $(F)(Fa \leftrightarrow Fb)$ ' are not saying the same thing.⁵⁷

There is a connection between identity and difference. If a is identical with b , then a is not different from b ; and if a is different from b , then a is not identical with b . Difference is symmetrical, but not reflexive or transitive, and it is obviously not an equivalence relation. Leibniz's Law can be read as "numerical identity entails qualitative identity in every respect" or "numerical identity entails no qualitative difference in any respect". The corresponding Difference Law is that "numerical difference entails a qualitative difference in some respect", or "numerical

provided $a = b$ is true)." At the very end of the article he says that "the thought expressed in ' $a = b$ ' differs from that of ' $a = a$ '." This looks like an opening for *modus tollens*.

55 *Logical Properties*, pp. 7–8.

56 *Tractatus*, 5.5302.

57 Wiggins thinks that Leibniz's Law as traditionally understood, namely, as $(a = b) \rightarrow (F)(Fa \leftrightarrow Fb)$, cannot be regarded as an elucidation of identity, and that complete community of properties flows from identity. Like McGinn, he thinks that identity is a primitive notion, though he claims a "discursive elucidation" is possible, and that his book, *Sameness and Substance*, as a whole provides such an elucidation. See Wiggins, *Sameness and Substance*, p. 49.

difference entails there is not qualitative identity in every respect”, or, in symbols, $(a \neq b) \rightarrow (\exists F)(Fa \ \& \ \neg Fb)$. If Leibniz’s Law and the corresponding Law of Difference were elucidations of identity and difference, respectively, then identity and difference would be elucidated in terms of one another, that is, in terms of qualitative identity and difference, which are in turn explained in terms of the numerical identity and difference of properties.⁵⁸ It appears that identity and difference are primitive notions.

Consider the following identity and difference sentences:

- | | |
|-------------------------------------|-------------------|
| 1. ‘a is the same as a’ | necessarily true |
| 2. ‘ $\neg(a$ is the same as a)’ | necessarily false |
| 3. ‘a is different from a’ | necessarily false |
| 4. ‘ $\neg(a$ is different from a)’ | necessarily true |

We can infer whether these sentences are true or false from their form alone; and since they are true or false in all possible worlds, they are necessarily true or necessarily false, according to the possible worlds account of necessity.

Consider the following identity and difference sentences:

5. ‘a is the same as b’
6. ‘ $\neg(a$ is the same as b)’
7. ‘a is different from b’
8. ‘ $\neg(a$ is different from b)’

We cannot infer whether these sentences are true or false from their form alone. Sentence 5 is not evidently true in the way that sentence 1 is, despite the similarity, simply because it is as possible for ‘a’ and ‘b’ to refer to different things as it is possible for them to refer to the same thing. It is possible to know which thing one singular term refers to and which thing another singular term refers to without knowing whether both singular terms refer to the same thing. Sentence 7 is also not evidently true, even though it is the standard form of difference sentence, because it is possible that ‘a’ and ‘b’ refer to the same thing as well as possible that they refer to different things.

In each case some such sentences are true and others false. Whether one of these sentences is true or false depends on what the singular terms

58 McGinn argues convincingly that identity is unitary and undefinable (*Logical Properties*, pp. 7–9), and he also argues that difference or distinctness is primitive (pp. 9–12).

refer to. If the singular terms refer to the same thing in all possible worlds, then, if it is true in one world it is true in all possible worlds, and if false in one world it is false in all possible worlds. We could say of each of these sentences as they are presented to us: “if true, necessarily true, if false, necessarily false”.

What distinguishes the first four sentences is the repeated use of the same singular term. Even though one use of the symbol ‘*a*’ could refer to something different from another use of the symbol ‘*a*’, it is generally assumed that if they occur in the same sentence, they refer to the same thing. Because of this convention, a convention about identity of reference, it is possible to know whether the first four sentences are true or false just by looking at them.

To defer ontological commitment, we can say that identity and difference sentences involve two sentential functions and that one is the negation of the other, and since we are talking at the linguistic level about sentential functions, the negation can remain external negation. There is a strong temptation to explain the two sentential functions in terms of relations, namely, the relation of identity, which each thing has to itself and to itself alone, and the relation of difference, which each thing has to each other thing but not to itself. The instantiation of these relations is supposed to explain the necessary truth or necessary falsity of all these sentences in terms of the *de re* necessity associated with the instantiation of relations. The relation between the sentential functions is explained in terms of the relation between the relation of identity and the relation of difference, each being the negation of the other, where in this case the negation is internal negation. McGinn is mistaken, however, in arguing that if a relation is real that its negation is equally real, as we have already seen. But there is no reason here why if one of these relations were in some sense a real relation, the other should not be also.

There are a number of different interpretations of identity sentences. (1) The objectual interpretation of identity sentences is that identity sentences are about the relation of identity – and difference sentences are about the relation of difference. (2) The metalinguistic interpretation is that identity sentences are about names and what they refer to; a related view is that identity sentences are about the senses of proper names. (3) Salmon’s view is that, syntactically speaking, identity sentences are relational sentences, but pragmatically they impart to us information about names, descriptions, or bodies of information. (4) A related view is that the sentential function in an identity sentence does not involve reference to a relation of identity, but nevertheless identity sentences impart

to us information about names, descriptions, or bodies of information. This view makes the identity sentential function analogous to the logical connectives.⁵⁹

The predicative sentence ‘the evening star is bright’ says that a certain object possesses a certain property, which is also what the sentence informs us of, and the sentence is made true by a certain object possessing a certain property. The predicative sentence ‘the morning star is bright’ says the same thing of the same object; it informs us of the same thing; and is made true by the same thing. The predicative sentence ‘the evening star is bright’ says nothing about that object’s appearing in the evening; what it informs us of has nothing to do with the object’s appearing in the evening; and that it appears in the evening is not involved in what makes the sentence true. How that object is thought of, namely, as a heavenly body that appears in the evening, is, however, conveyed by the sentence in some other way.

But when we turn to identity sentences, things are not so straightforward. If identity sentences were predicative sentences, then the sentence ‘the morning star is identical with the evening star’ would say of a certain object that it has the relation of identity with itself, which would be what the sentence informs us of, and the sentence would be made true by that object having that relation with itself. The sentence would say nothing about that object’s appearing in the morning and appearing in the evening; what it informs us of would have nothing to do with that object’s appearing in the morning and in the evening; and that it appears in the morning and appears in the evening would not be involved in what makes the sentence true. If identity sentences were predicative sentences, then two sentences with the forms ‘ $a = a$ ’ and ‘ $a = b$ ’ would say the same thing, inform us of the same thing, and be made true by the same thing. But none of this appears to be the case for identity sentences.

There is little doubt about which property is being ascribed to the planet Venus in the case of the two bona fide predicative sentences, but in the case of identity sentences, it is not clear that there is such a relation of identity (or property of self-identity), and if there is, what sort of relation it is and what its significance is, or, indeed, why anyone should be interested

59 There is a small but significant aporetic literature on the subject of what is said by identity sentences. See, for example, Wittgenstein, *Tractatus*, 4.241–3, 5.5302–3; Strawson, *Subject and Predicate in Logic and Grammar*, p. 54; Wiggins, “Identity-Statements”; “Frege’s Problem of the Morning Star and the Evening Star”, pp. 228–30; Lockwood, “Identity and Reference” and “On Predicating Proper Names”; Morris, *Understanding Identity Sentences*, and references; and Salmon, *Frege’s Puzzle*, and the references given by Salmon on p. 79, n. 1.

in ascribing it to the planet Venus. Because identity sentences have the form of relational sentences, many people have assumed that all identity sentences express relational propositions and that it is the same relation in all identity sentences, namely, the relation of identity, which an object has with itself. From this natural assumption, based, in effect, on linguistic considerations, a metaphysically peculiar relation has been inferred to exist, a relation that is apparently the subject of constant comment. An identity sentence, such as ‘the morning star is identical with the evening star’, is indeed relational in form, and the most obvious candidate is the relation of identity; but what the sentence informs us of has nothing to do with a metaphysically obscure relation of identity and everything to do with the two descriptions. Ordinary users of the language who know nothing of the relation of identity, and less ordinary users who deny that there is any such thing, know exactly what is meant by such identity sentences.

These considerations are reasons for rejecting the objectual interpretation of identity sentences, which regards identity sentences as predicative sentences about the relation of identity. The metalinguistic interpretation regards identity sentences as predicative sentences about names and objects. The main objection to the metalinguistic interpretation is that an identity statement cannot be merely about names, but must also be about objects, and must say of two names that they refer to the same object, thereby reintroducing identity.⁶⁰ The same objection holds for interpretations that claim that identity sentences are about senses of proper names or descriptions, or are about bodies of information: they cannot be merely about descriptions or about bodies of information, but must also be about objects and say of two descriptions or bodies of information that they apply to the same object, thereby reintroducing identity.

Nathan Salmon’s interpretation is based on a distinction between the information that is *syntactically encoded* in a sentence and information that is *pragmatically imparted* by a sentence.⁶¹ What is syntactically encoded in a sentence is the semantic content; it is what is said by the sentence

60 For criticism of the objectual interpretation, see Morris, *Understanding Identity Sentences*, chap. 1, and for criticism of the metalinguistic interpretation, see chap. 2.

61 Salmon, *Frege’s Puzzle*, pp. 57–60. He cites Frege himself: “For we have to make a distinction between the thoughts that are expressed and those which the speaker leads others to take as true although he does not express them.” “Logic” [1897], in *Posthumous Writings*, p. 140. Bealer is aware that there are singular proposition theorists who hope to use “conversational pragmatics” to explain identity propositions, but rejects the approach because it cannot explain why they are both necessary and a posteriori (“Propositions”, p. 3, n. 2). He regards the Kripke–Putnam doctrine of scientific essentialism as universally accepted.

and what the sentence informs us of directly.⁶² What is pragmatically imparted by a sentence is what is shown by the sentence and what the sentence informs us of indirectly. Substitution of co-referential singular terms leaves unchanged what is syntactically encoded, but can change significantly what is pragmatically imparted.⁶³ A sentence such as ' $a = b$ ' could be called an informative identity sentence, while a sentence such as ' $a = a$ ' could be called a degenerate identity sentence because it is not informative.

Salmon suggests a number of possibilities for what the information pragmatically imparted by an identity sentence could concern.⁶⁴ It could concern (1) names, in other words, it could license us to substitute one name for another, so that we could use them as equivalents; it could concern (2) senses, or descriptions, in other words it could license us to think of an object that we now think of in one way in a different way; or it could concern (3) bodies of information, as Morris suggests – each of us has a file or body of information on the objects that we are familiar with and an identity sentence could license us to merge two bodies of information that we had hitherto kept as distinct files.

There are two ways an identity sentence could pragmatically inform us.⁶⁵ In one, the information the audience possesses about a certain object is extended; in the other, two units of information possessed by an audience are merged. Extending the information possessed about a certain object is a matter of being familiar with a certain object and then being informed that this new name also refers to it, or that this new description also applies to it, or that this new file of information also concerns it. Merging two units of information is a matter of being familiar with an object x and being familiar with an object y and then being informed that a name of x and a name of y are names of the same object, or that a description of x and a description of y are descriptions of the same object, or that a file of information that concerns x and a file of information that concerns y are files that concern the same object. The first extends our information concerning an object and does not seem to involve

62 The *Tractatus* distinguishes between what is said and what is shown by a sentence, and Dummett declares that “for Frege, we say what the referent of a word is, and thereby show what its sense is.” *Frege: Philosophy of Language*, p. 227.

63 Later, he explains the distinction in terms of his version of guise theory. “Believing” is a triadic relation between a person, a singular proposition, and a proposition guise, where a proposition guise is the way the person takes the proposition, and which contains in some way what is pragmatically imparted.

64 Cf. *ibid.*, p. 74.

65 *Ibid.*, p. 60.

identity strictly so-called, but the second seems to involve an assertion of identity.

There are also a number of ways of interpreting what is pragmatically imparted by an identity sentence: (1) We can try to *say* what is pragmatically imparted by means of another sentence. But if you insist on explaining what is pragmatically imparted by one sentence in terms of what is *said* by another sentence, you will introduce a further identity sentence, at least in cases of merging two units of information.⁶⁶ For example, an analysis of an identity sentence by Russell's theory of descriptions will include an identity sentence for the variables, namely, ' $x = y$ '. (2) We can claim that there is something irreducible about what is expressed by identity sentences: predicative sentences are one type of sentence and identity sentences are a quite different type.⁶⁷ (3) We can explain what is pragmatically imparted by identity sentences not in terms of anything they say but in terms of the role they play and what they license us to do – the *functional interpretation*. The purpose of most ordinary language identity sentences is not to *say* something in the way that predicative sentences do; their purpose is associated with their role or function, which is to license the merging of files of information, or the applying of two descriptions to the object referred to, or the applying of two names to the object referred to. This licensing is not what they say, but what they do. This is the interpretation that I recommend. Difference sentences have an analogous role; they forbid the merging of files of information or the applying of two descriptions to the same object or two names to the same object. This forbidding is not what difference sentences say, but what they do.⁶⁸

66 Englebretsen, while recognizing that the Lockwood–Morris account in terms of mental files is an attractive picture, does not think that it explains identity sentences: “Yet surely one piece of information in the newly augmented file is that conveyed by the sentence ‘*A* is *B*’. But what information do I now have when I know that ‘*A* is *B*’ is true?” Englebretsen, “Morris on Identity”. To merge the information on the two objects, I have to have the independent piece of information that ‘*A* is *B*’ which tells me that the two files can be merged. He is claiming that there is something irreducible about identity sentences; they express a thought that cannot be expressed in any other way.

67 Strawson says that in the case of predication statements a general account, valid for all audiences, can be given of what they inform us of; but in the case of identity statements, this cannot be done, though for a given identity sentence a general account can be given of how someone would be informed by it. Strawson, *Subject and Predicate in Logic and Grammar*, p. 54. Wiggins, in “Identity-Statements”, recognizes a difference in type between predication statements and identity statements, regarding both as primitive.

68 The analogue of truth conditions for identity and difference sentences makes mention of identity and difference. The analogue of truth conditions for an identity sentence is that the

Quine thinks that a version of the functional interpretation is required for formal logic:

Statements of identity consisting of '=' flanked by singular terms are needed, we saw, because language includes a redundancy of names. But the need of '=' flanked by variables arises from a different peculiarity of language; viz., from its use of multiple variables of quantification (or their pronominal analogues in ordinary language). Two variables are allowed to refer to different objects; and thus the sign of identity comes to be needed when, as in the above four examples, there arises the question of sameness or difference of reference on the part of the variables, rather than singular terms, that is fundamental.⁶⁹

In logic, an identity sentence is merely a "license to substitute".⁷⁰ Another possible view is to insist that all identity sentences be analysed in terms of Russell's theory of descriptions and that the ineliminable identity sentence between variables be given a functional interpretation.

I suspect that even the use of a degenerate identity sentence in ordinary language, such as 'Cicero is Cicero', if it has a function at all, is not intended to convey something about the obscure metaphysical relation of identity. Consider this example given by Bertrand Russell:

James Ward, whom I had consulted as to what I should read, sent for me and told me that a Wrangler is a Wrangler. From this instance of the law of identity he drew the inference that I had better read no more philosophy till after my mathematical Tripos, with the result that I did not do so badly in it as had been feared when he gave his advice.⁷¹

The information pragmatically imparted here, whatever it was, was quite different from information about the relation of identity.

If identity sentences express propositions about the relation of identity or the property of self-identity, then they would be predicative propositions of an unusual type, made true in the usual way by a particular possessing a property, and they would be necessary propositions. If not, then there is no reason to think that they are necessary. If what they inform us of is something else, something to do with names, descriptions, or files

merging of the two units of information is permitted if and only if both units of information apply to the object referred to. The analogue of truth conditions for a difference sentence is that the merging of the two units of information is not permitted if and only if both units of information do not apply to the same object.

69 Quine, *Methods of Logic*, p. 211.

70 Cf. Wiggins, "Frege's Problem of the Morning Star and the Evening Star", and Wittgenstein, *Tractatus*, 4.241–3, 5.5302–3.

71 Russell, *My Philosophical Development*, p. 37. A wrangler is someone who obtains a first class honours degree in mathematics at Cambridge.

of information, then what they inform us of is not necessary, and what makes what they inform us of true is obviously something to do with names, descriptions, or files of information.

Identity sentences play their role in ordinary language, whether the sentential form involves reference to the relation of identity or not. But from the considerations mentioned hitherto concerning the role of identity sentences, we cannot infer whether there is or there is not such relation. Nevertheless, I suspect that the form of an identity sentence and what is syntactically encoded is merely a conventional vehicle capable of bearing information about names, descriptions, and files of information, but otherwise an idle wheel, playing no useful role.

Appendix 8.1: Logical Constants as Functions

The fundamental thought of the *Tractatus*, as Hacker puts it, is that the logical constants, thought of as signs, are not representatives and do not refer to functions as Frege thought, but are instead operations.⁷² Wittgenstein's main arguments are as follows. That ' $p \rightarrow q$ ' and ' $\neg p \vee q$ ' are the same truth-function of p and q shows that the logical constants are inter-definable and therefore not primitive signs, and it also shows that the logical connectives are not relations (5.42). That ' $\neg \neg p$ ' says the same thing as ' p ' shows that negation is an operation, not a function; for if ' \neg ' were the name of a function, then ' $\neg \neg p$ ' and ' p ' would say different things (5.44). A function cannot be its own argument, but an operation can take one of its results as its base (5.251).⁷³ I argue that although Wittgenstein is right that they are not representatives of anything in the world, there is a sense in which Frege is right that the logical constants are functions.

72 Hacker, *Insight and Illusion*, p. 34ff. See *Tractatus*, 4.0312, 5.2341, and 5.24.

73 Wittgenstein's reasons have been conveniently summarized by Hacker (*Insight and Illusion*, pp. 41–42; cf. Ramsey, "Facts and Propositions", pp. 48–49): (1) The "primitive signs" of logic are inter-definable and therefore not primitive signs (5.42). (2) ' $p \rightarrow q$ ' is the same truth-function of p and q as ' $\neg p \vee q$ ', showing that the logical connectives are not relations (5.41–2). (3) If ' \neg ' were a name, then ' $\neg \neg p$ ' would say something different from ' p ', since ' $\neg \neg p$ ' would be about \neg and ' p ' would not (5.44). (4) A function cannot be its own argument, but an operation can take one of its results as its base, for example, ' $\neg \neg p$ ' (5.251). (5) Operations unlike functions can vanish. For example, ' $\neg \neg p$ ' says the same thing as ' p ', and ' $\neg(\exists x)\neg Fx$ ' says the same thing as ' $(\exists x)Fx$ ' (5.441). (6) If ' \neg ' were the name of a function, then from one proposition, infinitely many different propositions would follow by repeated application of the function (cf. 5.43).

It is not clear how an operation differs from a function. The use of the term ‘operation’ is metaphorical, being based on things like the literal, physical operation of rotating a rigid body. For example, if ‘ s ’ refers to the state of a rigid body, ‘ R_{90} ’ refers to the operation of rotating it 90 degrees in a certain plane, and ‘ R_{-90} ’ refers to the operation of rotating it 90 degrees in the same plane but in the opposite direction, then ‘ $R_{-90} R_{90}s$ ’ refers to the same state as ‘ s ’ itself. A rotation and a state of a rigid body are different sorts of things ontologically, and different again from the rigid body itself, but a rotation is not nothing, and the sign ‘ R_{90} ’ is certainly a representative since it refers to a rotation.

When the sign for a number, such as ‘2’, is combined with the minus sign, ‘-’, the result is a sign, namely, ‘-2’, that refers to a different number, but when the minus sign is combined with ‘-2’, a second “application” of the sign, the result is the sign ‘--2’, which refers to the same thing as ‘2’ does. When the minus sign maps ‘-2’ into ‘2’, it is applied to ‘(-2)’ as its argument; it is not applied to the existing minus sign as its argument. Though the minus sign clearly does not refer to a number, the sign ‘-2’ refers to something different from ‘2’ on account of the presence of the minus sign. However you regard the minus sign, it contributes in some way to the difference in reference of the two signs. And there is a sense in which the minus sign is a function, one which maps one numeral into another numeral, corresponding to which there is a function that maps one number into another number – though I am not convinced that Platonism about numbers would commit you to Platonism about functions, even though Frege was apparently committed to both.

Similarly, in logic, when the negation sign maps ‘- p ’ into ‘ p ’, it is applied to ‘(- p)’ as its argument; it is not applied to the existing negation sign as its argument. Though the negation sign clearly does not express a proposition, the sign ‘- p ’ expresses something different from ‘ p ’ on account of the presence of the negation sign. However you regard the negation sign, it contributes in some way to the difference in the proposition expressed. There is also a sense in which the negation sign is a function, one which maps one sentence into another, corresponding to which there is a function that maps one proposition into another proposition – though even Platonism about propositions would not commit you to Platonism about functions on propositions.

Consider now the issue of what is expressed by compound sentences. Early in the *Tractatus* in a discussion of elementary sentences, Wittgenstein makes a distinction between a sentence (*Satz*) and a sentential sign (*Satzzeichen*): “And a sentence is a sentential sign in its projective relation

to the world.”⁷⁴ In Chapter 3, Section 3.6, I concluded that the best interpretation of this statement was that a sentence is a sentential sign that meets certain conditions, namely, a sentential sign that has a sense.⁷⁵ Later in his discussion of what I call ‘compound sentences’ and what he just calls ‘sentences’, Wittgenstein also talks of sentence and sentential sign, as though making a similar distinction. At one point he writes down a truth table (with two symbols missing), puts it between single inverted commas, and declares that it is a sentential sign, and later in the same section he says that the sentential sign can be written as ‘(TTFT)(p, q)’.⁷⁶ But with respect to sentences he says, “A sentence is the expression of its truth conditions” and “A sentence is a truth-function of elementary sentences.”⁷⁷

If we followed our interpretation of elementary sentences, we should have to say that a compound sentence is a compound sentential sign that meets certain conditions, namely, it is one that has a sense. But according to Wittgenstein, compound sentences do not have sense; at least they do not have sense in the way elementary sentences have sense. The nearest approximation would be to say that a compound sentence is a compound sentential sign that has truth conditions. The usefulness of the distinction between a compound sentence and a compound sentential sign may lie in the fact that any well-formed sentential sign has truth conditions, except for tautologies and contradictions, which do not have truth conditions. Tautologies and contradictions are not sentences, because they lack sense, say nothing, do not picture, and do not have truth conditions; they are, in effect, limiting or degenerate cases of sentences.⁷⁸ Even though he denies that there are tautological and contradictory sentences, Wittgenstein allows that there are tautological and contradictory sentential signs.

A compound sentence does not picture how reality would be if it were true in the way an elementary sentence would; it expresses the conditions

74 *Tractatus*, 3.12. Wittgenstein’s term ‘Satz’ is translated as ‘proposition’ by Pears and McGuinness.

75 See Chapter 3, Section 3.6.

76 *Tractatus*, 4.442; cf. 5.101. The sentences ‘ $p \rightarrow q$ ’, ‘ $\neg p \vee q$ ’, and ‘ $\neg q \rightarrow \neg p$ ’ have the same truth conditions, as does the sentence ‘(TTFT)(p, q)’. Let ‘ r ’ be a sentence that is formed by an operation on two other sentences ‘ p ’ and ‘ q ’; ‘ r ’ can be said to be a function of ‘ p ’ and ‘ q ’ – in the notation of the mathematicians, ‘ $r = f(p, q)$ ’. The truth possibilities for the sentences are given in Wittgenstein’s order as TT, FT, TF, FF, and the corresponding truth values for ‘ r ’ are TTFT, which therefore fix what the function f is, and hence the characteristic set of truth values can appear in the place of f .

77 *Tractatus*, 4.431 and 5.

78 *Tractatus*, 4.461–4.465. See the quote from Hacker in note 3.

under which it is true by means of a rule that assigns truth values to the sentence for each truth possibility of the set of component sentences. The way in which a compound sentence has “a projective relation to the world” is to restrict how reality can be, by confining it within a box, so to speak: “The truth conditions of a proposition determine the range it leaves open to the facts.”⁷⁹

Where others would say that a compound sentence has a truth value (or, with Frege, that it refers to a truth value) and expresses a compound proposition, the Tractarian position appears to be that a compound sentence has a truth value and *is* a truth-function of the sentences of its component sentences.⁸⁰ It is not clear what this means, but presumably Wittgenstein is not saying that the truth value of a compound sentence is a function of the truth values of its component sentences, though this is correct. There is also a function that maps compound sentences themselves into truth values, in the same way that there is a function that maps compound propositions into truth values, assuming that compound sentences express propositions. But these functions are just truth value assignment functions: they may be determined by the truth conditions, but they are not identical with the truth conditions.

Returning now to Wittgenstein’s discussion, it is not clear how the fact that ‘ $p \rightarrow q$ ’ is the same truth-function of p and q as ‘ $\neg p \vee q$ ’ (now that we are not clear what that means) shows that the two connectives are not relations. Perhaps the idea is that since the two expressions are the same truth-functions, they are the same extensionally speaking, and this would not be the case if ‘ \rightarrow ’ and ‘ \vee ’ referred to distinct relations. Nevertheless, ‘ $p \rightarrow q$ ’ and ‘ $p \vee q$ ’ themselves are distinct extensionally, and, moreover, it is not obvious why two distinct relations should not be inter-definable. It is not clear what it is for the two different sentences, ‘ $p \rightarrow q$ ’ and ‘ $\neg p \vee q$ ’, to be alike in that they *are* the same truth-function of p and q , or they *express* the same truth-function. The claim cannot be that the sentences ‘ $p \rightarrow q$ ’ and ‘ $\neg p \vee q$ ’ express the same proposition in some peculiarly Tractarian sense, and it is certainly not being claimed that they express the same Platonic proposition or the same Russellian type proposition.

The principal reason that the logical connectives are not relations is, presumably, because sentences are not names. Wittgenstein is also wrong to say that the logical constants are not primitive: the logical constants can to some extent be explained, not defined, in terms of each other, in

79 *Tractatus*, 4.463.

80 *Tractatus*, 5. This is called the thesis of extensionality; see Black, *Companion*, p. 219.

much the same way that the geometrical primitives “point” and “line” can to some extent be explained in terms of each other.

There are also a number of internal difficulties associated with Wittgenstein’s position. If beliefs involve the instantiation of mental sentences, it is by no means obvious what the belief corresponding to a compound sentence would be. Is a mental compound sentence instantiated, is a mental truth table instantiated (Wittgenstein does call them sentences), or is a longer mental sentence expressing truth conditions instantiated? Or are all three instantiated? Since ‘ $p \rightarrow q$ ’ and ‘ $\neg p \vee q$ ’ are at least different sentences, believing ‘ $p \rightarrow q$ ’ is a matter of the corresponding mental sentence being instantiated, and believing ‘ $\neg p \vee q$ ’ is also a matter of its corresponding mental sentence being instantiated. Because the mental sentences are different, believing one should be quite different from believing the other. These are difficulties for all those who suggest that belief is to be explained in terms of mental or neural sentences.⁸¹ There are also difficulties here peculiar to the *Tractatus*. Wittgenstein, for example, apparently believed that a universally quantified sentence was equivalent to a long conjunction, but given that belief is a matter of the occurrence of a mental sentence, and that there are millions of swans, it would not be possible on his view for someone to believe that all swans are white.⁸² It is not possible for all those conjuncts actually to exist as mental sentences; they would have to be replaced by believing all sentences of a certain type, which reintroduces quantification.

Wittgenstein’s account of compound sentences can provide no plausible account of beliefs of subjects, and it also assumes that all complex sentences are truth-functional. It emphasizes the rules that people might follow, but gives no explanation of what they might believe that explains why they follow those rules. Wittgenstein denies what seems obvious to some people, namely, that ‘ $p \rightarrow q$ ’ and ‘ $\neg p \vee q$ ’ express different propositions that are equivalent only in that they have the same truth conditions.

However, if ‘ p ’ and ‘ q ’ express propositions and if ‘ $p \& q$ ’ also expresses a proposition, then the sign ‘ $\&$ ’ contributes in some unique way to the proposition expressed, in the same way that the sign ‘ \vee ’ contributes in some unique way to the proposition expressed by ‘ $p \vee q$ ’. Not only is it clear that the signs ‘ $\&$ ’ and ‘ \vee ’ each map a given pair of sentences into one and only sentence and are therefore functions, but given that the sentences

81 See the discussion in Chapter 3, Appendix 3.1.

82 Wittgenstein appears to have regarded them as equivalent in all ways, Black, *Companion*, pp. 280–82; Anscombe, *Introduction*, pp. 141–43.

' $p \ \& \ q$ ' and ' $p \vee \ q$ ' express propositions, then corresponding to the signs '&' and ' \vee ' there are functions that each map a given pair of propositions into one and only one proposition. In other words, Frege was right that the logical constants are functions. But it is not obvious that Platonism about propositions commits you to Platonism about the logical constants; and even less obvious that Russellianism about propositions commits you to the view that there are things in the world corresponding to the signs for the logical constants. The ontological status of the logical constants is far from clear; they could be called operations or operators if that were thought to help, though it would have to be understood that an operation was a type of function.

A predicative proposition is something that a subject can think. A compound proposition is also something that a subject can think, but the act of thinking a compound proposition is different from the act of thinking a predicative proposition. Whatever a logical connective is, it is something that contributes to this difference and, consequently, is a function in the sense that it maps a pair of propositions into a proposition. But this does not tell very much about the ontological status of the logical connectives. Although Frege would locate propositions, what he calls 'thoughts', in the third realm, the Russellian view of propositions does not locate them in another realm. From a Russellian point of view, logical connectives have, if anything, less ontological status than propositions themselves. They have some sort of intentional status because they figure in how a subject thinks a proposition.

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