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Grammar in Early Twentieth-Century Philosophy

What is the philosophical significance of grammar? No period in the history of philosophy provides a richer source of materials for the consideration of this question than the period running from the end of the nineteenth century to the Second World War.

In this book, ten essays examine the contributions made to the issue of the philosophical significance of grammar by Frege, Russell, Bradley, Husserl, Wittgenstein, Carnap, and Heidegger. The substantial introduction presents the reader with a systematic perspective on some of the issues explored by these philosophers. The questions raised by these philosophers include the following: If language is about the world, and language is governed by grammar, can the world be said to have a kind of grammar also? If so, what does this grammar look like? Is such a grammar a reflection of some empirical language, or perhaps an idealization of grammatical features of empirical language? Is there a privileged grammar of a natural or artificial language which we can regard as providing us with a unique and privileged access to the metaphysical structure of the world?

This book consists of major research papers written by a team of specialists, all but one published here for the first time. It will be of interest not only to established scholars working in metaphysics and the philosophy of language, but also to graduates and advanced undergraduates specializing in these areas.

Richard Gaskin is Professor of Philosophy at the University of Liverpool, and has held visiting appointments at the Universities of Edinburgh, Mainz and Bonn. He has extensive publications in ancient, medieval and modern metaphysics and philosophy of language, including *The Sea Battle and the Master Argument: Aristotle and Diodorus Cronus on the Metaphysics of the Future* (Walter de Gruyter, 1995).

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Preface

What is the philosophical significance of grammar? No period in the history of philosophy provides a richer source of materials for the consideration of this question than that running roughly from the end of the nineteenth century to the Second World War. This period witnessed a remarkable resurgence of interest in the nature of grammar and its connections with metaphysics, logic, and science, including the new science of linguistics. The relation of grammar to philosophy was investigated with an intensity which established the centrality of this topic in the philosophical canon, and its continuing importance for practitioners is directly traceable to the cardinal role it played in the writings of the major philosophers of this period.

These philosophers did not share a common doctrine on the philosophical significance of grammar, but they all were motivated by the thought that the phenomenon of grammar must be of philosophical significance. Language is about the world, and language is governed by grammar. What does that tell us about the world — that it in some sense has a grammar too? And, if so, what does that grammar look like? Is such a grammar merely a reflection of some empirical language, or of structural features shared by all empirical languages, assuming that there are such features, or is it perhaps an idealization of grammatical features of empirical language? Or, if it is going too far to say that the world has a grammar, is there nevertheless some

privileged grammar of a natural or artificial language which we can regard as providing us with a unique and privileged access to the metaphysically deep structure of the world?

These and similar issues were of course not novel in the history of philosophy. For one thing, Aristotle's *Categories* and the rich tradition of commentary and reflection which it generated produced a number of quite sophisticated approaches to them, such as Ockham's subtle and highly influential defence of a stripped-down category theory reflecting a nominalistic critique of Aristotelian grammatical categories; one thinks also in this connection of Leibniz's visionary but necessarily inchoate project of devising (or discovering) a *characteristica universalis* which would, by dint of revealing and more importantly arithmetizing the deep grammar of our

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concepts, hold out the hope of infallibly settling all conceptual disputes. But without wishing to talk down or in any way belittle the value of what their precursors achieved or sought to achieve, it is fair to say that the great philosophers who were active at the end of the nineteenth and during the first half of the twentieth century investigated the question how the grammar of our language relates to the structure of the world in a distinctively new and sophisticated way, employing recently developed powerful logical and philosophical tools which enabled a sharper and clearer focus to be achieved.

I will not here attempt to summarize the contributions to this volume. Their treatments and topics are too diverse to be embraced in a short survey: they range over the better- and lesser-known writings of Frege, Russell, Bradley, Husserl, Wittgenstein, Meinong, Carnap, and Heidegger. I have chosen instead to present the reader, in my editorial introduction, with a partly historical but largely systematic route through some of the issues and philosophers forming the subject matter of this collection. These philosophers' concerns are still so close to ours that, to a degree unmatched by any other area of the history of philosophy, it is difficult to separate historical from systematic issues: at least, it is hard to do systematic philosophy without adverting to the contributions of these thinkers. No doubt that will change with the passage of time, as even twentieth-century philosophy increasingly comes to be thought of as belonging exclusively to the history of the subject; but it is, happily, hard to see any such relegation occurring in the near future. My introduction, aside from being an attempt in its own right to make a contribution to debates current in systematic philosophy, is designed to demonstrate to the reader how the period of philosophy that is the focus of this collection can inform systematic enquiry and speak to our present-day concerns. The introduction is accordingly intended as a polemical guide to the issues and the philosophers it discusses: that is, it presents an argument for a particular position — and one which would not be shared by all, or perhaps any, of the contributors to the collection. But I hope that the reader may find it a useful and even challenging point of entry to the topic of this collection.

With the exception of Alex Oliver's essay, all the contributions are original and appear here for the first time. Oliver's chapter, 'A few more remarks on logical form', is reprinted from the *Proceedings of the Aristotelian Society XCIX* (1999), 247–72, by courtesy of the Editor of the Aristotelian Society: © 1999.

I would like to thank all the contributors for their helpful co-operation during the editing of this collection, which made that task both pleasurable and instructive. I am particularly grateful to Stewart Candlish for assisting me with the preparation of several of the papers. Finally, I am indebted to my wife Cathrin and my son Thomas for their good-humoured companionship throughout all stages of the book's preparation.

Page 1

Introduction

Proposition and world

Richard Gaskin

Russellian propositions, Fregean senses, and facts

According to Russell's account of the composition of propositions in his *Principles of Mathematics* a proposition consists not of words or senses, but of 'the entities indicated by words' (1903: 47), which Russell calls 'terms'. There we are told:

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*. . . 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.

(1903: 43)

Russell's 1903 treatment of propositions as containing worldly things was not an entirely new departure in the history of philosophy. Russell himself traced his view back to G. E. Moore's 1899 paper 'The Nature of Judgment', though he also indicated that he thought there were important differences between his handling of his key notion of a term and Moore's corresponding notion of a concept.¹ In fact the Russellian approach or something like it is much older than 1899. For the view that there are propositions *in rebus*, or propositions which, though located in the mind, contain worldly things, was defended by a number of medieval thinkers.²

In the modern literature on reference, it is customary to identify what are called 'Russellian propositions' with ordered n -tuples of objects and/or properties.³ To take a simple example, the Russellian proposition corresponding to the sentence 'Socrates is wise' would be the pair $\langle \text{Socrates}, \text{wisdom} \rangle$. It is often held that we may, without undue anachronism, construe Russell's 1903 position as involving the claim that $\langle \text{Socrates}, \text{wisdom} \rangle$ is the meaning of the sentence 'Socrates is wise'. This contention seems to me basically correct, though for systematic purposes the above characterization of Russellian propositions needs further refinement, which I shall give in due course. For the moment, however, it will not be necessary to work with any very precise understanding of what Russellian propositions

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look like. We can start with the following rough characterization: Russellian propositions are meanings of declarative sentences, and are composed in some way of the worldly entities introduced by the semantically significant parts of those sentences, centrally objects and properties.

If Russellian propositions exhaust the meanings of declarative sentences, it will follow that where ' a ' and ' b ' are co-referring names, ' Fa ' and ' Fb ' do not present different propositions; and this was indeed a position maintained by Russell throughout the period 1903 to 1918: 'you make exactly the same assertion whichever of the two names you use' he tells us in 1918 (1956: 245). The Russellian view may be contrasted with a Fregean

one, according to which a 'third realm' — the realm of sense (*Sinn*), distinct both from the realm of reference (*Bedeutung*) and from the realm of ideas (*Vorstellungen*) — must be admitted to our metaphysical economy, to register the fact that when items of spoken and written language, centrally names and predicates, present entities in the world, centrally objects and properties (i.e. saturated universals such as wisdom) or concepts (i.e. the unsaturated entities which are Frege's own preferred candidate for the referents of predicates),⁴ they present those worldly entities not barely, but in some particular way, which is of semantic and epistemological significance. Frege located propositions, which he called Thoughts (*Gedanken*), at the level of sense: its constituents are then appropriately conceived as senses, rather than the objects presented by those senses.

If we ask where *facts* are located in the metaphysical economy, assuming that facts are identical with true propositions,⁵ we will receive different answers depending on whether we adopt a Russellian or a Fregean position: a Russellian identifies facts with true Russellian propositions, which are denizens of the world, or at least composed of worldly entities; a Fregean identifies facts with true Fregean Thoughts, which are denizens of Frege's 'third realm'.⁶ The general framework also makes available a hybrid position, not claimed by either of these historical figures, according to which we combine a tripartite approach to semantics in the style of Frege, recognizing distinct levels comprising items of spoken and written language, sense, and reference, with a Russellian approach to propositions (and facts), locating these not at the level of sense but at the level of reference, or alternatively (the position I shall go on here to endorse) locating some of them at the level of sense and some at the level of reference.

Neo-Fregeanism

In the writings of a neo-Fregean like John McDowell, we find a position which is close to, but not quite the same as, Frege's historical position. McDowell identifies propositions — the things which, if true, are facts — with Fregean Thoughts. But there is no suggestion that these items belong to a 'third realm'. On the contrary, for McDowell facts — true Thoughts — make up *the* world, the only world there is. McDowell reaches this position by

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starting from the truism that the sort of thing one can think (e.g. *that Spring has begun*) is the sort of thing that can be the case (1994: 27). That yields either an incorporation of the realm of sense into the realm of reference, or an incorporation of the realm of reference into the realm of sense, and McDowell makes it clear that it is the latter incorporation he has in mind:

Given the identity between what one thinks (when one's thought is true) and what is the case, to conceive the world as everything that is the case (as in *Tractatus Logico-Philosophicus*, Â§1) is to incorporate the world into what figures in Frege as the realm of sense. The realm of sense (*Sinn*) contains thoughts in the sense of what can be thought (thinkables) as opposed to acts or episodes of thinking. The identity displays facts, things that are the case, as thoughts in that sense — the thinkables that are the case.

(1994: 179)

Now the incorporation of the realm of reference into the realm of sense is, as McDowell concedes (*ibid.*; cf. 27f.), a move which smacks of an unacceptable idealism. For surely, one is inclined to object, an incorporation of the realm of reference into the realm of sense must destroy any connection between our thinking and a world *beyond* thinking, and hence must forfeit its entitlement to the *contentfulness* of thought,

which in turn is tantamount to undermining the very existence of thought itself. Surely, then, such an attempted incorporation must dismantle itself. In more prosaic terms, one might say, the move seems to commit some kind of category mistake: for given that senses are modes of presentation *of* referents, how can facts be composed of senses *and* referents?⁷

Of course,⁸ if the neo-Fregean position were taken to be constructed out of integral Russellian and Fregean components crudely juxtaposed — if facts were conceived as constituted by referents and senses as equal partners, adjacent to one another, as it were, and only externally related — then the prospects for the coherence of such a botched-together view would indeed be remote. But that understanding of the neo-Fregean position is not forced on us by its official characterization: that facts, though worldly entities, are incorporated into the realm of sense. The right way to understand this characterization is presumably the following. Facts are composed — in the first instance, one might say — of senses, and then, derivatively — since senses are modes of presentation of referents — they are composed of referents. But senses and referents are exactly not equal partners in the business of constituting facts. A particular sense necessarily comes together with the referent it presents, but not vice versa. As it is traditionally expressed, sense *determines* reference, but not vice versa. The world is not constructed by tacking senses on to referents conceived as given in advance of senses; rather, referents simply fall out of a world whose basic stuff is composed of senses. In creating a world of senses, to put it in mythological terms,

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the demiurge *eo ipso* created a world of referents. Since objects belong in the world of reference,⁹ we can say that in creating a world of senses, the demiurge *eo ipso* created a world of objects. To have *senses* figuring in one's cognition is precisely what it takes for one to cognize the *world*: senses do not figure in one's thought *faute de mieux*, so that one's thinking in some way falls short of the world. To give an analogy, if one manages to find a way of dancing, one has *eo ipso* managed to dance; to find a way of dancing is not to fall short of dancing, it is not to get stuck at some intermediate stage, but to dance.¹⁰

The location of propositions

Nevertheless, it seems to me that the neo-Fregean picture fails to rebut the charge that it embraces an unacceptable idealism. I shall explain my reason for accepting the charge below, in the context of putting forward my own positive proposal about the right way to construe Russellian propositions (pp. 14–16). Before that, I need to expose another respect in which I think the neo-Fregean picture goes wrong.

This is its allocation of facts — more generally, propositions (true and false) — exclusively to the level of sense. Now in the context of a distinction between sense and reference for names and predicates, this feature of the neo-Fregean economy cannot be justified. If objects and properties can be presented in different ways, then so too can entities, such as Russellian propositions, which objects and properties combine to make up. Propositions cannot, once a distinction between sense and reference is on the table, be located exclusively on the sense side of the sense–reference divide, on pain of introducing the sense–reference distinction into contexts where it is irrelevant. For if we insist on housing propositions exclusively at the level of sense, we disable ourselves from ever treating them extensionally. But there will be many contexts in which we will want to do just that. For example, while we may for some purposes wish to say that the proposition (and fact) that Hesperus is Phosphorus is a different proposition (fact) from the proposition (fact) that Hesperus is Hesperus (here identifying the propositions in question with Fregean Thoughts, and facts with true propositions, so understood), we will surely want to say that the proposition (fact) that Paderewski (thought of as a musician) is talented is the same proposition (fact) as the proposition (fact) that Paderewski (thought of as a politician) is talented (again identifying facts with true propositions).¹¹ It would be right, for instance, for

someone who, let us say, thinks of Paderewski as a musician, and who overhears someone else who, let us say, thinks of Paderewski as a politician and who utters a sentence of the form 'Paderewski is talented', to report this latter person as having said that Paderewski is talented, even though the two actors in this scenario associate different senses with the name 'Paderewski'. In fact it is not even the case that fair reportage always demands that one retain the same name

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as that used by the subject of one's report. In some contexts an assertion that *a* is *F* can be fairly reported as an assertion that *b* is *F* (assuming that *a* is *b*), if, for instance, the report's audience is familiar with the name '*b*' but not with the name '*a*', and if nothing turns on retaining the particular name employed by the original speaker. In cases like these, though what the speaker actually said was (schematically) '*a* is *F*', he can be reported as having expressed the *proposition* that (schematically) *b* is *F*, even though these (schematic) sentences express distinct (schematic) Fregean Thoughts. That shows that we need an extensional as well as an intensional notion of proposition, i.e. that we need to discern propositions obtaining at the level of reference as well as at the level of sense.¹²

In the example I have just given we have to do with a quite general truth about proper names, the fact that, as Gareth Evans put it, 'the single main requirement for understanding a use of a proper name is that one think of the referent' (1982: 400), and hence that names may figure in successful communicative episodes even though speaker and hearer think of the relevant referent in quite different ways. These ways may be sufficiently different to generate distinct Fregean senses, where distinctness of sense is governed by a principle which Frege expresses several times¹³ and which Evans calls the Intuitive Criterion of Difference (1982: 18f.): according to this criterion, sentences differ in sense just in case someone can, without irrationality, take different cognitive attitudes to them (accepting or rejecting one but not the other); where such sentences differ only in point of replacement of a single expression occurring in one by a congruent but distinct expression in the other, the difference in sense of the sentences as wholes will be accounted for by positing a difference in sense in respect of these distinct expressions. The distinct expressions in question need not be phonologically or morphologically distinct. Thus, in the 'Paderewski' example cited above, different senses may be associated with the name 'Paderewski', thus in effect generating the presence in the language of two distinct though phonologically and morphologically identical names. This phenomenon may arise even within a single person's linguistic repertoire. That is because a subject may, without irrationality, deny that Paderewski (thought of in one way) is the same man as Paderewski (thought of in another way), and may come to realize, perhaps with a flash of illumination, that Paderewski (thought of in one way) *is* Paderewski (thought of in another way).

But, for the purposes of semantics, we do not want to cut senses as finely as may be necessary to meet the demands set by the Intuitive Criterion of Difference: no composer of a theory of meaning for a language would wish to incorporate multiple clauses for a name such as 'Paderewski', corresponding to the multifarious ways in which speakers of the language in question think of that man. Epistemologically speaking, then, Fregean sense may play a role which is semantically without significance. That does not mean that there is no place for a purely semantic conception of sense, but any such conception will, at least in the case of proper names, be a

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relatively thin notion, no more than what one might call the internal accusative of the reference relation: for a name to have sense, in this sense of 'sense', is just for it to have a referent. For in having *a referent* the name necessarily has *reference* where this latter word has its full force as a verbal noun, and is not a synonym of 'referent' and, on the semantic conception of sense, there is no distinction

to be drawn between sense and *reference* (verbal noun), notwithstanding the clear distinction which obtains between sense and *referent*.¹⁴

Traditionally, so-called singular-proposition theorists have erred in locating propositions exclusively at the level of reference. This strategy fails because it does not yield sufficient fineness of grain in many contexts,¹⁵ and such theorists have sometimes recognized the need to compensate elsewhere in their theory for the coarseness of Russellian propositions located at the level of reference.¹⁶ My argument in this section has been, in effect, that to respond to these problems by locating propositions exclusively at the level of sense would be an overreaction. In some contexts, certainly, fineness of grain is wanted in the individuation of propositions; but in other contexts what is required is rather coarseness of grain, including, sometimes, the coarsest possible grain, namely in cases where sense plays *no* role in establishing criteria of fair reportage.¹⁷ To deal with these contexts, we need to make room for propositions at the level of reference as well as at the level of sense. That is to say, we need to conceive not only of Fregean Thoughts as propositions, but of what Fregean Thoughts present in the realm of reference as propositions too: the propositions figuring at the level of sense will naturally be composed of senses, i.e. of modes of presentation of (centrally) objects and properties; those figuring at the level of reference will naturally be composed of (centrally) the corresponding objects and properties themselves, and hence will coincide with what I am calling 'Russellian propositions'.

Russellian propositions and Carnapian intensions

The semantics I am recommending involves a departure from Frege's own picture of what corresponds to Thoughts in the realm of reference, namely truth-values. Frege's argument for making truth-values the referents of declarative sentences is that under intersubstitution of co-referential parts of a sentence, while the thought introduced by the sentence may change, its truth-value will not.¹⁸ But once Russellian propositions are on the scene as a candidate for referential status, this argument is insufficient, because it is equally the case that the Russellian proposition introduced by a declarative sentence will not change under intersubstitution of co-referential parts of the sentence. Further, if we are employing reference as our central semantic notion, according to which the referent of an expression is just what an adequate theory of meaning for the language in question will specify as what an understander needs to think of, and what it suffices for

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him to think of, in order to count as understanding the expression (or, to put it in Russellian terms: the referent of an expression is just the concrete or abstract object which an understander needs to be acquainted with, and which it suffices for him to be acquainted with, in order to count as understanding the relevant expression),¹⁹ then it will not be an option to select truth-values as the referents of sentences.²⁰ For it is in general neither necessary nor sufficient for the understanding of a sentence that one know its truth-value. That it is not necessary is obvious. The reason why it is not sufficient has to do with the Principle of Compositionality: we must conceive of the object of the understander's acquaintance at the level of reference corresponding to sentences at the level of spoken and written language as being *composed of* other entities at the level of reference (in the simplest case, of an object and a monadic property). Frege's preferred candidate for what a sentence refers to is too crude to do justice to this important principle, for sentences with the same truth-value may express propositions composed of distinct objects and properties. The entities which we discern at the level of reference corresponding to the spoken and written sentence must be as finely individuated as the Principle of Compositionality requires, and only Russellian propositions, which are by definition composed of the entities at the level of reference corresponding to all the semantically significant parts of the sentence, can meet this requirement.

Frege's full picture of the composition, at the levels of spoken and written language, sense and reference, of a simple categorical sentence (one composed of a proper name and a monadic predicate) was conveniently sketched by him in a letter to Husserl of 24 May 1891 (1976: 94â 8):

Declarative sentence (<i>Satz</i>)	proper name (<i>Eigenname</i>)	concept-word (<i>Begriffswort</i>)	
â	â	â	
sense of sentence (<i>Gedanke</i>)	sense of proper name	sense of concept-word	
â	â	â	
referent of sentence i.e. truth-value	referent of proper name i.e. object	referent of concept-word, i.e. concept (<i>Begriff</i>)	â object ²¹ falling under the concept

I have already remarked that Frege's reason for taking truth-values to be the referents of declarative sentences is inconclusive: as far as the consideration he adduced goes, we might as well take Russellian propositions to be the referents of sentences. Given further that, as I have argued, we require an extensional conception of propositions as well as an intensional one, we must locate Russellian propositions somewhere on the above map,

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and now the Principle of Compositionality forces us to jettison Frege's candidate for sentential referents, truth-values, in favour of entities composed of the other referential entities in the picture, namely objects and concepts (or properties), that is, in favour of Russellian propositions. This is not a trivial change since, as I have also remarked, there is a clear clash between Frege's preferred candidate for the referents of sentences and mine: for sentences with the same truth-value may express distinct Russellian propositions. But there is a way of mitigating the appearance of clash between Frege's candidate for the referents of sentences and mine.

To see what is required we need to ask why Frege draws the column for the sense and reference of concept-words in the way he does. In particular, why does Frege not treat the object(s) satisfying a concept-word as its referent? The reason, as he explains to Husserl (*ibid.*), is that a concept-word may be empty â it may be the case that nothing satisfies the corresponding concept â without its ceasing to be scientifically useful. Indeed, our very ability to say of certain concept-words ('witch', say) that they are empty *depends* upon their having reference: otherwise nothing would be expressed by our form of words (the sentence 'There are no witches' would be meaningless). Hence, in the case of concept-words, we need to draw a distinction between reference and satisfaction: that a meaningful concept-word must have reference is just truisitic, but it by no means follows that it must be satisfied by anything. It is arguable that no such distinction is either required or admissible in the case of at least some proper names, which we may call 'genuine' proper names. Empty names purporting to be genuine proper names have no sense and express nothing: purported statements containing such names are literally senseless.

Of course this does not hold in general of the category of proper names as recognized by Frege, for this category includes definite descriptions. And, as Russell argued, definite descriptions may be empty without forfeiting meaning; hence they may be empty without forfeiting either sense or reference, once the intuitive notion of meaning has been subdivided into these further species (as it was not by Russell himself). It is of course a matter of controversy exactly how the semantics of definite descriptions should be characterized, but it should be uncontroversial that there are at least some 'pure' uses of such descriptions for which the slogan 'no (satisfying) object, nothing expressed' fails. Hence our *general* account of the semantics of definite descriptions must distinguish between reference and satisfaction: that a definite description must, like any other semantically significant linguistic unit, have reference is just truistic; but whether a definite description is satisfied by anything or not is not a semantical question, and so not the concern of the theorist of meaning. But if Frege's excessively broad category of proper names is narrowed so as to exclude such descriptions (and presumably also those ordinary proper names which abbreviate pure descriptions), then the 'proper name' column of the Fregean diagram can be sustained. It is important to note that, in the resulting position, for

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genuine proper names as for all other linguistic expressions,²² the principle that sense *determines* reference, i.e. that a sense necessarily presents a referent (equivalently: that if a purported expression at the level of spoken and written language fails to have reference, it has no sense either), holds.²³

Frege's separation, in the case of concept-words, of the question of reference from that of satisfaction is convenient when one comes to consider modal discourse, something in which Frege himself took no interest. For one wishes to say that concept-words which have the same extensions in the actual world, but distinct extensions in other possible worlds, have different references. But there is nothing to prevent us from identifying the referents²⁴ at least of *semantically simple* concept-words with their so-called Carnapian intensions, i.e. with functions from possible worlds and times to sets of objects,²⁵ such that the function keyed to a given concept-word maps each world/time pair to the set of objects satisfying the concept-word in that world at that time. (It is important here to stipulate that the identification proceed only in respect of semantically simple expressions, for it is possible for complex expressions which have distinct references \hat{a} because they are composed of items having distinct references \hat{a} to enjoy the same Carnapian intensions.)²⁶ That then enables us to simplify the right-hand column of Frege's picture, provided we note that the picture applies just to simple categorical sentences. Once we have suitable Carnapian intensions in place as the referents of semantically simple concept-words (i.e. as what concepts \hat{a} or, as we might prefer to say, properties \hat{a} are),²⁷ we are obliged to construe the referents of declarative sentences not as sheer truth-values, but as *their* (the sentences') Carnapian intensions, i.e. as functions from possible worlds and times to truth-values.²⁸ And now nothing stands in the way of identifying *simple* Russellian propositions with these functions.²⁹

That still leaves a gap, however, between *complex* Russellian propositions and their corresponding Carnapian intensions: these complex propositions are related many \hat{a} one to the corresponding Carnapian intensions, and hence determine them; but there is no reverse relation of determination, so that there can be no question of a general identification between Russellian propositions and their corresponding Carnapian intensions. (In the general case Russellian propositions will be identified with the objects, properties and structures of composition given by the phrase markers which specify how the proposition is built up.)³⁰ Hence, while there is a rapprochement between my approach to sentential reference and an approach which is arrived at by modifying Frege along Carnapian lines, there is no question of a complete harmony.

Co-referentiality and intersubstitutability

It is natural to object to any position, such as Frege's or mine, which envisages referents for declarative sentences (truth-values, Russellian

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propositions) on the basis that if such sentences designate entities, of whatever sort, they must be intersubstitutable (at least in transparent contexts) with any co-designative names *salva veritate*. But they are plainly not so intersubstitutable: they are not even intersubstitutable *salva congruitate*, let alone *salva veritate*. An objection along these lines has recently been propounded by Ian Rumfitt (1996), though the point is an old one.³¹ Rumfitt argues that co-designation entails intersubstitutability *salva veritate* (at least in some contexts), remarking that to cut the notion of co-designation off from that of intersubstitutability in what he calls semantically 'central' contexts 'would surely be to deprive the relevant notion of an important conceptual anchor' (1996: 71).³² But I have already provided the notion of reference or designation with its conceptual anchor — the referent of an expression of spoken or written language is what the understander needs to think of, and what it suffices for him to think of,³³ in order to count as understanding that expression — and nothing follows from this characterization about intersubstitutability: all that follows is that if two items of language are co-referential then the understander of them should think of the same thing. Intersubstitutability (in some contexts) *salva veritate* we may regard as a function of co-referentiality *and* appropriate semantic category, not merely of the former. Declarative sentences and purportedly co-referential names belonging to a different semantic category (e.g. 'the True', or 'that proposition') will fail to intersubstitute (*salva congruitate*, and so a fortiori *salva veritate*) for just that reason — that the semantic categories are different — and not because, after all, they are not co-referential.³⁴

The reference of concept-expressions

Frege's reason for not treating the objects which satisfy a concept-word as its referent is inadequate. The fact that a concept-word may be empty without that word's ceasing to be scientifically useful is of course correct, but all that shows is that in such cases it is not an option to say that the concept-word has no referent at all: it does not show that, where concept-words *are* satisfied by one or more objects, those objects cannot be the referent of the relevant words. We might satisfy Frege's demand that scientifically useful concept-words always be assigned a referent by finding some appropriate object — say, the empty set — to serve as the referent of empty such words, while maintaining that non-empty concept-words refer to the objects which satisfy them. The objection to *this* position — which, so far as its treatment of non-empty concept-words goes, certainly was the one adopted by William of Ockham,³⁵ and is imputed by Frege to Husserl — is not that it renders a satisfactory semantics for empty concept-words impossible, but rather that it is subject to a certain vicious circularity.³⁶

For suppose that the referent of the concept-word 'green' is just all the green objects. That means (given the conception of reference we are

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working with: pp. 6â 9), that in order to understand this concept-word an understander needs to be acquainted with those objects, and needs to think of them when entertaining that concept-word. But that in turn means that the understander's understanding of that concept-word will consist in knowledge of the truth-values of a (presumably infinite) number of predications of the form 'a is green', where 'a' holds place

for a suitable name or demonstrative expression. Quite apart from the surely excessive demand thereby placed on understanders, the requirement subjects the understander to an intolerable epistemic bind, for it is plausible that, in order to know whether a predication of the form '*a* is green' is true, one must first understand it. The circularity which ensues is vicious.³⁷ Of course, there must be *some* connection between understanding the concept-word 'green' and identifying particular objects as green. Plausibly, to understand that concept-word is to be able, in favourable conditions, to settle the truth of predications of the form '*a* is green'. But having that ability falls well short of knowing, in advance of giving consideration to any particular predication of that form, which objects are green. The position which Frege is attacking, and which was indeed Ockham's, is thus untenable, though not for the reason Frege gave.

As far as the charge of vicious circularity goes, the Ockhamist position can be remedied if, instead of identifying the referent of a non-empty concept-word with just the objects which satisfy it, we identify that referent with the *set* of such objects. The move from the concrete (at least in the case of objects satisfying concept-words like 'green') to the abstract obviates the circularity problem, because there is no obligation to construe acquaintance with a set as requiring acquaintance with its members (together with the knowledge that they are its members). Instead, it is open to us to say that it suffices for acquaintance with a set of objects that one have knowledge of the *membership condition* of that set, an achievement which we can, in turn, identify with an ability, in favourable circumstances, to settle whether a given object is a member of the set or not. Being acquainted with the set of green objects amounts, on this account, to being able, in favourable conditions, to settle whether a given object is green or not. (There is no prospect here of a more informative specification of the membership condition, which is that an object is a member of the set if, and only if, it is green. But that is no objection to the account.) Having this general ability is not constituted by knowledge of the truth of any relevant predications; which is the result we require to avoid the circularity problem.

But of course we cannot rest content with an identification of the concept which the concept-word 'green' refers to with the set of green things. For one thing we need to take into account a point which was noted by Walter Burleigh, in opposition to an Ockhamist account.³⁸ Green things are constantly coming into and going out of existence, but the concept-word 'green' is not at the same time undergoing change of meaning: hence we cannot identify the meaning (referent) of that concept-word with the set of

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currently green objects. Strictly, Burleigh's point would be met by extending the membership of the set of green objects to include all objects which ever have been, are, and ever will be green.³⁹ But this adjustment does not go far enough to solve two residual problems.

One problem is that the adjustment does not take account of modal discourse. Since sets necessarily have the members they have, a statement such as 'That wall might have been green', said of a wall which is in fact white throughout the period of its existence, would come out false, whereas it ought (in normal circumstances) to be true. The second problem is that, although we have allowed that knowledge of the membership condition of a set is sufficient for acquaintance with that set, it would be quite implausible to hold that such knowledge is also necessary. For we must allow that someone who knows *de re* which things are members of the set in question, even if he is unaware that they satisfy some common interesting condition (i.e. something more interesting than the trivial condition of being members of just that set), is acquainted with the set. But then it might be held that it is at least in principle possible for someone to be acquainted with the set of green things — even when this is taken to contain all objects which are at any time green — without knowing that they are green, that is, without realizing that their satisfying *that* condition is exactly what makes them members of this set, and so without genuinely understanding the concept-word 'green'. It follows that in order to understand that word it is not sufficient to be acquainted with the set of (any or all of) the objects that actually are (at any time) green. It is, of course, *necessary* to be acquainted with that set in order to understand the

concept-word 'green': for we have allowed that knowledge of the membership condition of the set suffices for acquaintance with it, and we have identified knowledge of that membership condition with understanding the concept-word in question, so that it follows that being acquainted with the set is a necessary condition of understanding the concept-word; but, to repeat, it is not *sufficient*. (Nor, as we have seen, is it necessary to have *de re* acquaintance with the members of the set, for one may dispose of an understanding of the word just if one has the ability to settle, in favourable conditions, whether a given object is green, and one may have that ability without knowing in advance the truth of any predication of the form '*a is green*').⁴⁰

We simultaneously solve both the problems mooted in the last paragraph if we adopt the strategy I have already recommended, and identify simple Fregean concepts with their Carnapian intensions. That strategy yields the right result for modal discourse, and it also delivers something acquaintance with which we may plausibly take to be necessary *and* sufficient for understanding corresponding concept-words. It might seem here as if an analogue of the second problem threatened the proposed identification: could one not imagine a subject acquainted *de re*, so to speak, with the Carnapian intension of 'green' — that is, acquainted with the mapping from possible worlds and times to sets of objects — but ignorant of the meaning

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of 'green', in the sense that he would have no inkling of what all these objects had in common? No: the worry underestimates the epistemic achievement of being genuinely acquainted *de re* with the Carnapian intension of 'green'. The point is that acquaintance with a mapping from possible worlds to sets of objects (we can abstract from time here) would require acquaintance with the relevant possible worlds themselves, and that in turn would require one to know (of all worlds other than the actual world, which we can presumably identify ostensively) which sentences are true at any given such world; for that is how non-actual possible worlds are individuated. Hence one could not be merely acquainted *de re* with the Carnapian intension of 'green' without knowing, in the case of worlds other than the actual world, which things were green in those worlds, and that would in turn require one to think of the green objects in those worlds *as green* (as satisfying the schema '*a is green*').

But one might now wonder whether a recurrence of the vicious circularity problem which plagued Ockham's semantics would undermine the possibility of acquaintance with the Carnapian intension of 'green': would not such acquaintance have to embrace knowledge of which sentences (and, in particular, which sentences of the form '*a is green*') were true? No. As I noted in passing above, one can (and presumably must) identify the actual world ostensively, not in terms of which sentences are true in it. In fact, quite apart from the circularity problem, it would be impossible to have an understanding of 'green' based on (i) knowledge of which objects were (in fact) green in the actual world and (ii) which sentences of the form '*a is green*' were true in non-actual possible worlds, for that would destroy the univocity of the word 'green': it would have one meaning in its application to the actual world, where it would refer to the objects which are in fact green, and another in its application to non-actual possible worlds, where it would refer to a function mapping those worlds to sets of objects — just those objects satisfying the schema '*a is green*' in those worlds (again I abstract from time). Knowledge of the meaning of the word 'green' would, on this basis, be *de re* in respect of the actual world but not in respect of non-actual worlds; but that entails that 'green' would have meant something different (understanding it would have required a different ability) had some other world been actual, which contradicts the univocity of the word.

If we are to preserve the univocity of the word 'green', we must insist that acquaintance with the Carnapian intension of 'green' is constituted by knowledge of the membership condition of this intension (which is a set, comprising ordered pairs of world/time pairs and objects), an achievement which, as I argued in the last paragraph but one, is not distinct (as we saw it *was* distinct in the case of the simple set of green objects) from having *de re* acquaintance with the relevant set (the Carnapian intension). Since knowledge of the

membership condition of this set (the mapping from world/time pairs to green objects) is tantamount to knowledge of the membership condition of the set of objects constituting the range

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of the mapping \hat{a} i.e. the set of actual and possible green objects \hat{a} and since knowledge of the membership condition of the set of actual and possible green objects is, as I have suggested, equivalent to understanding the concept-expression which collects the set of actual and possible green objects, we have the result that acquaintance with the Carnapian intension of 'green' is equivalent to understanding the word 'green'.

A revised semantic map

The revised map of the relations between the levels of spoken and written language, sense and reference, for the case of the simple categorical sentence, looks like this:

Declarative sentence	proper name	concept-word
\hat{a}	\hat{a}	\hat{a}
sense of sentence	sense of proper name	sense of concept-word
\hat{a}	\hat{a}	\hat{a}
referent of sentence i.e. Russellian proposition = function from possible worlds/times to truth-values	referent of proper name i.e. object	referent of concept-word i.e. concept = function from possible worlds/times to sets of objects

Now there is a good sense in which the items in the lower levels of this map determine items at higher levels. Thus for example objects (the referents of proper names) determine equivalence classes of proper names, the relevant equivalence relation being 'x has the same referent as y', where the variables range over (actual and possible) proper names. And objects also determine equivalence classes of senses of names, the relevant equivalence relation being 's presents the same object as t', where the variables range over (actual and possible) senses of names. Similarly, senses of names determine equivalence classes of (actual and possible) names. Is any closer relation than one of determination in the offing? Can items at lower levels simply be *identified* with suitable equivalence classes composed of items at higher levels?

One might think that there was a problem besetting the identification of objects with equivalence classes of (say) senses from the direction of Leibniz's Law. For how can a spatio-temporal object be identified with a set, which is not spatio-temporal? It seems to me, however, that Leibniz's Law does not present an insurmountable obstacle to the identification, because the Law does not need to be stated in the object-language form: If $a = b$ and Fa then Fb . Instead, we can formulate it in metalinguistic terms as: If 'a' and 'b' co-refer, and if 'F' and 'G' co-refer, and if 'Fa' is true, then 'Gb' is true. This ought to permit an identification of spatio-

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temporal (or any other) objects with suitable sets, since presumably, corresponding to any property of the original object (' F '), there will be a set-theoretic reconstruction of that property (' G ') which will be satisfied by the set-theoretic reconstruction of that object.⁴¹

Although the objection to an identification of objects with suitable sets of senses or names based on Leibniz's Law seems to fail, there is an epistemological reason why we cannot countenance these identifications, though an identification of senses with suitable sets of names can go through. (I shall continue to take the middle column of the revised table as my example, though the argument is generalizable to all three columns.) Grasping a sense S is a matter of being acquainted with the object presented by S , call it ' O ', in some particular way. Suppose now we identify O with a suitable equivalence class of senses, \hat{a} . That means that being acquainted with O will be tantamount to being acquainted with \hat{a} . Being acquainted with \hat{a} will consist in knowing its membership condition (there cannot be *de re* acquaintance with \hat{a} for a finite subject of thought, since it contains infinitely many members). That in turn will be tantamount to knowing that a given sense S_n is in \hat{a} just in case it presents \hat{a} . But here we have a vicious circularity, because there is no way into this equation for a subject of thought. To find out whether S_n presents \hat{a} you first have to know what set \hat{a} is, but to find that out you need to ascertain whether S_n is in \hat{a} or not, and to find that out you need to ascertain whether S_n presents \hat{a} .

Now one can construct a precisely parallel argument for the case of a purported identification of senses with suitable equivalence classes of names, but here I think it is possible to escape from the epistemic bind. The method I propose trades crucially on the fact that senses are not at the lowest level in the semantic hierarchy: that is why the tactic works in this case, but would not work to save an identification of objects with suitable sets composed of items higher up in the semantic table. Understanding a name is a matter of grasping its sense. Suppose now we identify that sense with a suitable equivalence class of names. Understanding a name will then be tantamount to being acquainted with the relevant set. But instead of saying that acquaintance with a suitable set of names requires knowledge of the membership condition of that set (which would take us into a vicious circle), we can exploit the fact that names present *objects*, which we are *not* identifying with sets of senses, and say that acquaintance with the relevant set of names is tantamount to acquaintance with the relevant object (in some particular way). There is a good sense, then, in which senses are linguistic \hat{a} they can be identified with suitable sets of items of spoken and written language \hat{a} but objects (and other entities at the level of reference) remain stubbornly distinct both from entities at the level of sense and from entities at the level of spoken and written language. Hence the neo-Fregean picture, which envisages a hitching-up ('incorporation' was McDowell's word) of the level of reference to that of sense, goes too far in the direction of idealism: a relation of determination is the best that is available.

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The thesis that referents determine suitable equivalence classes of senses generates no clash with the traditional doctrine, which I have accepted, that sense determines reference but not vice versa. For the meaning of that doctrine is that *individual* senses determine *individual* referents, but not vice versa. The determination by referents of suitable sets of senses does indeed yield a way in which reference determines sense; but there is no clash with the traditional doctrine because the determination of sense by reference operates at a more general level than the reverse determination embodied in the traditional doctrine: individual referents determine not any particular sense, but *all* their corresponding senses (including all *possible* senses).

False propositions at the level of reference

Propositions figuring at the level of reference can of course be either true or false. The false ones will be what Russell, using Meinongian terminology, called 'false objectives' (1994): they include entities like *that Charles*

I died in his bed (viewed extensionally). It was Russell's subsequent horror of false propositions *in rebus* which led him to abandon the theory of propositions set out in his *Principles of Mathematics* of 1903, and adopt the multiple relation theory of judgement which we find in his writings between 1910 and 1918. In spite of the notorious difficulties of his later approach,⁴² which one might think constituted good evidence that the attempt to avoid positing 'false objectives' was a wrong turning, there has been a marked tendency among recent writers to follow Russell in his post-1910 aversion to 'false objectives'. Thomas Baldwin, for instance, objects that false propositions, conceived as occupying the level of reference, would 'need to have, so to speak, all the substance of actual states of affairs, but just to lack their actuality' (1991: 46), and Julian Dodd, commending Baldwin's remark, calls the positing of what he calls 'objective non-facts' a 'crass example of metaphysical extremism' (1995: 163). But let us keep our heads here. The sense in which false propositions at the level of reference can be said to *have* the substance of actual states of affairs is just this: they are composed of actual entities (centrally objects and properties). The sense in which false propositions *lack* the actuality of actual states of affairs is just this: while the objects and properties which compose false propositions are real enough, those objects do not, as it happens, fall under those properties.

If, as I have claimed (pp. 4–6), we are obliged by semantical considerations to modify the Fregean picture so as to house propositions at the level of reference as well as at the level of sense, we cannot avoid postulating extensional entities corresponding to those false propositions which obtain at the level of sense. For the argument to the referential status of some propositions was utterly neutral on the question of truth-value. Why

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should it be thought that the sheer availability of false as well as true propositions obtaining at the level of sense creates difficulties for the project of colonizing the referential level with propositional entities corresponding to Fregean Thoughts? To the question whether false propositions at the level of reference are as real as true ones, the answer must be affirmative: after all, the constituents of false propositions at the level of reference are, as I have noted, just as real as the constituents of true propositions at the level of reference, for it is not possible to refer to objects and properties that are not there to be referred to. And these constituents must be unified in a false proposition as they are in a true one: for a false proposition is no less unified than a true one.⁴³ Hence there must be something propositional in form at the level of reference corresponding to false sentences and false Thoughts at the levels of spoken and written language and sense. False propositions at the level of reference differ from true ones at that level neither in point of unity nor in point of ontological status: the only difference is that their constituent objects and properties are being said (by the proposition in question) to be related in a way in which they are not related.

Resistance to the claim that false propositions are as real as true ones has its origin, I think, in the following worry. If the level of reference consists of false propositions as well as true ones, if, at that level, there are non-facts in just as good a sense as there are facts, how can we account for what is *distinctive* about truth, or factuality, and how can we justify thinking of truth, or factuality, as metaphysically privileged in the sense that it is (in some sense) *better* than falsehood? Saying that facts *obtain*, whereas non-facts do not, is saying no more than that some propositions, at the level of reference, are true, and others are not, and saying this much does not, so it might be held, either tell us what really distinguishes truth from falsehood, or why truth is peculiarly important to us. I think the charge that the picture I am offering tells us neither what truth is nor what is special about it should simply be accepted. But accepting the charge does nothing to undermine the picture, for we should seek satisfaction on these issues elsewhere. The picture is (so I claim) forced on us by semantical considerations, and it is a consequence of the picture that propositions at the level of reference may be false as well as true; but there is no obligation on us, merely in virtue of offering this picture, to address all puzzles that arise in connection with the distinction between truth and falsity.