

“Determinacy of sense” in Frege and Wittgenstein.

D. A. Holiday

Philosophy MSc. The University of Edinburgh 2005

1. Introduction

What does Frege mean when he says that a proposition or a sentence has a determinate sense? How did he come to this conception, and did his views change during his philosophical career? How do his views on these matters relate to what we take ourselves to mean when we say that something makes sense? These are the questions which will guide this examination of “determinacy of sense” in Frege. My investigation will take a historical shape, for I hope to trace the process of argument and philosophical enquiry by which Frege came to the view of determinate sense close to the heart of his logicism. I will try to show how his approach to the problems of language allowed metaphysics to steal, unnoticed, into his theoretical vision of language, in particular with regards to his account of what it is for a linguistic expression to make sense, or ‘have a sense’. The full account of why and in what way his theory is metaphysical will be left to the last section, where I turn to sections of the *Investigations* that are directed specifically at Frege’s thoughts.

Why, at such a late stage in the development of Fregean scholarship do I feel that this issue needs a fresh treatment? An important consideration in favour of a close critical study of “determinacy of sense” in Frege is simply the importance of this idea in Frege’s work, and how little has been on this particular topic. There can be no doubt that ‘determinacy of sense’ was an important part of Frege’s logicistic project. As James Conant suggested to me¹, this is an idea that is “at once everywhere and nowhere in Frege’s writing”. In the primary texts, Frege says remarkably little about this matter, and there has been relatively little written specifically about this aspect of his logicistic theory of language. However, this conception of determinate sense is a recurrent feature of much secondary literature on Frege, and “determinacy of sense” is used as something of a catchphrase in work on both Frege and the *Tractatus*.

¹ In personal correspondence.

The importance of Frege's work as an influence on Wittgenstein should also encourage us to get a close grip on such a crucial idea. Geach recalls that Frege occupied a special place in Wittgenstein's thoughts right to the end of his life:

The very last time I was with him we were discussing Frege's article 'On Concept and Object'; he took the volume containing the article in his hands, read for a while in silence, and then said, "How I envy Frege! I wish I could have written like this"²

Anscombe also notes that:

Wittgenstein's *Tractatus* has captured the interest and excited the admiration of many, yet almost all that has been published about it has been wildly irrelevant. If this has had any one cause, that cause has been the neglect of Frege.³

Although it would seem to me a mistake to say that the neglect of Frege in Wittgenstein scholarship has continued in recent years, Anscombe's warning highlights the importance of trying to pin down and think through the central aspects of Frege's logicism which interested and concerned Wittgenstein when he wrote his seminal early work. The *Tractatus* would, in turn, become that by which his later work was to be measured, for *Philosophical Investigations* was conceived by Wittgenstein as primarily a response to the *Tractatus*, hence his wish that they be published together. As we will see, in my concluding section, we find in the *Investigations* some deep and powerful insights into the form, and short-comings of Frege's investigation of language. In particular these concern how Frege was led by a particular form of approach to these matters into an idealised, metaphysical and even dogmatic vision of language. Wittgenstein's comments thus offer an account of both the *root* and the *nature* of metaphysics in Frege's logicism. That Wittgenstein considered his initial (*Tractatus*) attempt to clean up the Fregean view

² *LPP*. Preface pp. 3

³ *An Introduction to Wittgenstein's Tractatus* pp. 12

of language unsuccessful, i.e. that it needed a second treatment *at all*, suggests that the understanding of Fregean logicism which conditioned Wittgenstein's to Frege's work may be key to understanding important changes in Wittgenstein's thought following the *Tractatus* – in particular those concerning his conception of metaphysics. These changes are of central concern to Wittgenstein scholarship. Unfortunately, I will have no time to enter into such a project in this essay, although I hope to at least lay some of the groundwork for reflection on these matters here.

In light of the absence of a clear definition, or exposition of “determinacy of sense” in Frege's writings, there is much room for interpretation, and misunderstanding of what he meant by this. In the spirit of charity, many commentators give interpretation of this expression which makes it consistent with the other aspects of his theory (those about which he gives a clearer exposition), but do not go into the thoughts which condition this conception (in particular – the need for *determinate* sense) at great length. This may mask important differences tensions between the theory and everyday language, and between Frege's mature theory and his initial views on language. I intend to offer a close study of what Frege *actually says* about determinacy of sense, how he uses the expression through the course of development of his logicism, and how his wider philosophical views shaped his conception as his theory of language develops. In so doing I hope to bring to light the process by which he was drawn *away* from an initial understanding of what it is to ‘make sense’, that was not so distant from our naïve understanding of this as we might assume, into a metaphysical theory of language which conflicts in important ways with language in its everyday form.

Frege's vision of the structural nature of language (thought and reality) led him to an increasingly blinkered and negative attitude towards certain of our everyday linguistic practices. His mathematical / scientific concerns, and rationalist tendencies led him to a vision of an ideal language (for rational discourse) and of language's underlying, essential form. As this vision developed, it conflicted ever more strongly with the facts of everyday language-use. These conflicts between theory and subject-matter, and Frege's attitude towards resolving them reveal the depth of metaphysics in his vision. The

conception of metaphysics that I draw upon in this paper is taken from my reading of the *Investigations*, and was suggested to me by ideas that feature in Cora Diamond's work on Frege and the *Tractatus*. It can be paraphrased as: the form of investigations which look for final answers (solutions) to problems (kinds or types of problems, not particular/local problems) to be given in terms of the underlying, or 'essential' nature of things. Thus it is Frege's conception of the logicistic project itself, his conception of the kind of philosophical activity in which he was engaged – that of exposing the essence of language, in terms of logic (the universal structural form of thought and the world), in order to resolve fundamental problems with language once and for all – that led him into trouble. By emphasising the contrast between Frege's *initial* comments about everyday language-use and sense, and what he is led to say about these by the terms of his fully-fledged logicism, I hope to bring out the manner in which the form of his enquiry shaped the theory of language that it produced. This is an important example of the process by which a philosophical project of reflection on a subject matter can be metaphysical, and lead to philosophical dogma, in spite of our having no intention to engage in metaphysics. Frege's real interests, of course, lay in mathematics and the sciences. As we will see, these interests, and in particular his conception of the form of scientific thought and rationality, shaped his vision in crucial ways. However, he ended up creating perhaps the most powerful and influential metaphysical vision of language and logic in modern philosophy.

2. Frege on 'determinacy of sense'

The examples which Frege took to be characteristic of language, i.e. as revealing something essential about the nature of language, are those which fit best with the formal, structural view of language which he ended up with. Thus, most commentators focus on such example-propositions as “Every sailor loves some girl”, or “The Evening Star is the Morning Star”, and much work has been done in discussing how Frege’s *Begriffsschrift* and logicistic conception of language accounts for these. I will defer to this work, preferring to look at those examples which find a place in his early work, but sit more awkwardly with his full theoretical vision. Often, he either fails to account for these satisfactorily, or ends up treating them as deviations or distortions of language (logicistically conceived). I will also suggest some features of language-use which he *ignores*. In this way I will highlight how far Frege was led away from a standard view of what it is to make sense (and what we can make sense of), and into some severe tensions with everyday language-use. Next, I will turn to a discussion of where determinate sense stands in the wider context of Frege’s theory of thought, analysis, the structural form of the proposition, and the *Begriffsschrift* symbolism. I will argue that his views on these rest on a particular view of rational and scientific thought, and this leads to conflicts with everyday language (even under the account of such language given in certain of his early works). The contrast between our common-or-garden view of what it is to make sense, and the view of this matter that Frege is led to as a result of his broader theoretical commitments and particular philosophical approach, will, I hope, be made clearer in light of the tensions *within* Frege’s writing between his initial attitude towards the facts of the matter of everyday language-use and his logicism.

2.1 Frege's Examples

The first place in which we find the expression “determinate sense” comes right at the beginning of *Begriffsschrift*. Here he notes the difference in his system between symbols (letters) which can stand for various things (numbers, arguments, names) and those symbols like ‘+’, ‘-’, ‘0’, ‘1’ which have “fully determinate sense”. The idea of determinacy here is clearly one drawn from algebra and arithmetic. Frege, rather than explicitly saying what makes the latter group determinate, just offers a bald statement of this distinction, which seems to have been very clear, even obvious to him. The letter-symbols stand for *different* magnitudes; they can take different numbers or arguments and thus represent the open place in a function. The second group of symbols always indicate the same operation (‘ + ’ , ‘ - ’ , ‘ $^2\sqrt{\quad}$ ’) or the same magnitude (the Arabic numerals). The former group is of variables with an *ambiguous* meaning, the latter is a group of non-variables. Thus, “determinate” seems to mean something like non-ambiguous here.

Shortly after this Frege considers the difference between the active and passive voices in the two sentences “The Greeks defeated the Persians at Platea” and “The Persians were defeated by the Greeks at Platea”. He notes that “...*even if a slight difference of sense is discernable* the agreement in sense is preponderant”⁴ (emphasis mine). Although Frege notes that ‘the discernable difference’ here has no significance for his symbolic language, and it can be ignored when we are working in this language, it is still surprising that Frege leaves any room for the idea that there could be *both* agreement *and* differences between the senses of expressions. Frege does *not* at this stage deny the reality of the difference in the senses of these two sentences, and it seems that that he is allowing that there are different modes of sense in these sentences. Firstly, there is the *logical* view of sense under which, because what the sentences are about is the same and their logical implications do not differ, they can be said to have the *same* sense. Secondly there is a view which recognises a *difference* between the senses of the two expressions,

⁴ CP pp.3

which lies in the way that the information is given, what Frege calls “the reciprocal action of the speaker and hearer” by which the speaker “tries to set [the hearer] on the right track”⁵.

Frege even fleshes out some of the ways that differences in stress or implication and other aspects of conversational norms can shape our expressions. He takes these conventions to play a psychological role in aiding communication, and offers some details of how this works. For instance, stress or emphasis can be achieved by variations in word order which give the subject a “*specially important place*” in the sentence, and this indicates what want the hearer to pay most attention to. We can even use such communicative norms to highlight a *link between judgements*, “thus making it easier for the hearer to *grasp the whole sequence of thought*”. So, there seems to be a recognition here of some kind of link between the phrasing of our expressions and the kind of reasoning that we want to be conducted about them. Although these kinds of conversational conventions, cues and clues to aid the hearer’s comprehension, are taken to be entirely independent of its logical form, Frege does *not* deny that they are a real part of language-use or that they play a valid role in our communicative practices. At this stage, the logical features of expressions in everyday language are *only* preponderant, and although these are the only parts of language that Frege takes to be relevant to his symbolism, there is no suggestion here that this *negates* the other forms of discernable difference between expressions. (Frege also states that conjecture will be left out of the language to which his symbolism will be applied, and I would argue that this is a forewarning of his later sidelining of imaginative forms of thought and their expression.)

When Frege goes on to consider the difference between the expressions “every positive integer” and “the number 20”⁶, we are brought back to the mathematical picture of determinacy as ‘having an unambiguous meaning’ or ‘signifying one thing in all contexts’. The expression “every positive integer” is indeterminate, as it stands for no one ‘thing’ uniquely. Thus it has no sense when taken in isolation, “it gets a sense only

⁵ *Ibid.*

⁶ *Ibid.* pp. 13

through the context of the sentence”⁷. This fits the later theoretical picture in which determinate signification is part and parcel of having a sense. There is an apparent tension between the indeterminacy of this expression (its *lacking* a sense), and the fact that we can make perfectly good sense of sentences containing this expression, which Frege shows is resolved by means of its logical status as an element in sentence composition. The formal structure, or logical composition of language, cleans up the conflict here, but we should note that this is a conflict which arises from breaking down sentences into component elements in a particular way. Here, then, we get the first hint that ‘indeterminate sense’ is an illusion, a mere appearance that results from a misunderstanding of the grammar / logic of expressions in a language. The gap between what we think about language (how it *appears*), and what logic tells us about it (how it *really is*) is also seen in the comment that grammatical parsing should be guided by logical rules of content and not by our intuitive understanding of its composition:

...the whole proposition splits up into *function* and *argument* as regards its own content, not just as regards our way of looking at it.⁸

The account of *Sinn* is fully developed in *On Sense and Reference*. Frege conceives of sense as some aspect, or level of meaning in language that occupies an intermediate “realm” of reality between objects and ‘ideas’. This is illustrated by means of a metaphor with our seeing the moon through a telescope: the moon itself (the object ‘out there in the world’) is the referent of the word ‘moon’; the image of this object on the viewer’s retina is like a picture that we form in our head upon hearing this word; and the image of the moon ‘in’ the telescope is the sense of the word. The sense of the word ‘moon’ is something that we all understand when we hear the word, it is shared by those who hear the word in the same way that the same ‘image in the telescope’ is available to all those who look through the device. Sense is thus *objective*, in the sense of being public, shared by (available to) a community of people. As Joan Weiner puts it, Fregean sense is

⁷ *Ibid.* pp. 13

⁸ *Ibid.* pp. 14 There may be a tension between this view, and Dummett’s idea that the ascription of sense is based on the way in which we intuitively use and respond to new sentences (the truth conditions for which are determined “in a manner implicitly grasped by the speakers of the language” pp. 35). This may just show up the gap between ‘making sense’ of what someone says, and grammatical parsing.

“simply what is communicable or can be part of our common store of thoughts”⁹, i.e. it is what allows the speaker’s thought to be received into the minds of others in the linguistic community so that they can reason about it. The sense of an expression seems almost to float between or above language users like a cloud of ether, for they can all share in it at once. It is not *in* any one of them exclusively, but it is not out there, in front of them, in the world in the way that material objects are.

This is a picture of sense which buys objectivity at the expense of its reification, and imposing a gap between a sense and its use. As Burge puts it:

Frege conceived of senses as abstract entities that have their logical and semantical properties independently of the activity of actual minds or language-users.¹⁰

The idea that there is an image ‘in’ a telescope is deeply fishy. (Did Frege think that this image was realised by the action of the lenses on the light-rays entering the device?). This fishiness is reflected in Frege’s talk of a ‘third realm of reality’ with regards to thoughts, which he conceives of as “...by no means unreal, but their reality is of quite a different kind to that of things”.¹¹ This ‘third realm’ allows Frege to maintain a distinction between sense and reference, meaning and the material world, whilst still keeping both independent of the shadowy (unknowable, private and subjective) realm of ideas. So, the problem of how our (private) minds connect to each other in the (public) world, through the medium of language, is explained by the introduction of a third kind of thing, and a third level of reality, that sits between the objective and the subjective. The idea of ‘an image in the telescope’ builds a certain kind of determinacy into sense, for this ‘image’ seems to possess those qualities necessary for it to satisfy the logical criteria for identity that apply to *things*: it will have exact boundaries, have discernable qualities that set it apart from its surroundings, be countable and so forth. However, if the problem is to explain what determinate means, then an illicit appeal to the notion of ‘definite’ that we

⁹ *Frege in Perspective* pp. 172

¹⁰ *Frege on Sense and Linguistic Meaning* pp. 33

¹¹ *TT* pp. 311

find in our notion of objects is merely a way of slipping in an *as yet undefined* idea of determinacy in by the back door. Furthermore, this would hardly be a successful way for Frege to get to a *logical* conception of determinacy; for we have notions of objects which Frege himself might consider logically unsound (those of a heap, a pile, and so forth).

Here again, what the *determinacy* of sense might amount to is not discussed by Frege. There are, of course, dangers in trying to read an account of determinacy into a metaphor concerning objectivity, but as both of these aspects are built into the nature of sense, it is worth reflecting briefly on what kind of determinacy the metaphor can accommodate. Whilst limitations resulting from differences in our individual constitutions lead us to draw different *ideas* from the same word, the word's sense is public or objective insofar as the ideas resulting from our constitutions and abilities *overlap*. Frege defines thought in the same way, for a sentence's sense *is* the thought expressed by it. This coincidence of what a word means to a group of language users leads us to think of 'determinacy' on the model of a lowest common denominator, or shared core in our ideas. Frege seems to have a picture in mind in which our ideas are like mutually overlapping areas on a Venn diagram, and sense is the region where these ideas overlap and coincide. It is this region of overlap that is our "common store of ideas" we can communicate about it just because it is public or shared in this way, and Frege thus demarcates the realm of sense and thought. This analogy, then, suggests an understanding of 'determinate' that seems better aligned with terms that might be used to describe a *region* or *area* like 'definite', 'precise', or 'well-defined' than with the algebraic / atomic model we found earlier.¹² This geometrical conception of determinacy on the model of areas is, as we shall see later, tied in with his account of concepts.

It is important to note that it looks as though there is room for more than one form of indeterminacy, or 'failure to have a determinate meaning' in Frege's account. Firstly, we have *ambiguity*, when what someone says could be about one thing or another and

¹² Of course, under this picture sense need only be 'determinate' to the degree required to support the practices (of astronomy, of a debate in the subject of astronomy) which the tool (the telescope, the language of this subject) is used for. This strikes me as an opening for the idea of *use* as a criterion for meaning, which Frege entirely overlooked.

thus fails to be uniquely about one thing, and only that thing. Secondly, we have the kinds of *vagueness* and *imprecision* in our language allowed for by terms such as “roughly”, “generally”, “kind of”, “mostly”, “sort of” and so on. These two aspects of the notion of determinacy are tied in together by Frege. I merely wish to highlight that there is more than one kind of criterion for determinacy in play here. There is thus more than one way in which everyday language can *fail* to live up to Frege’s strict and restrictive conception of “determinate sense”. It is also important to note that the kind of reification of sense that we see in the telescope analogy – based on the thought that there is *sense* and we need to account for the kind of ‘something’ that it is – pushes out of sight the thought that making sense of one another is an *activity of the understanding* and that an account needs to be given of the activity. Frege is engaged in saying *what sense is* and not in how the practice, of “making sense” i.e. communicating meaningfully with one another, works. He is considering meaning in language as a thing in the abstract, a feature of the world, and not as something embedded essentially in (or constituted by) the activities and practices of communication.

A further awkward case which Frege considers is that of the communication of what he takes to be purely subjective ideas associated with a word (expression, sentence) in artistic uses of language:

To the possible differences here belong also the colouring and shading which poetic eloquence seeks to give to the sense. Such colouring and shading are not objective, and must be evoked by each hearer or reader according to the hints of the poet or the speaker. Without some affinity in human ideas art would certainly be impossible; but it can never be exactly determined how far the intentions of the poet are realized.¹³

Whatever this “colouring and shading” may be it is clearly *not* part of the sense: firstly, simply because it is not objective; and secondly, because Frege’s phrasing, implies that it is something external to a sense – it is something that we seek to “give to” the sense.

¹³ *Ibid* pp. 61

Shortly before this passage Frege states quite clearly that the sense of a word, expression or sentence is entirely independent of usage by any particular person: “one need have no scruples in speaking of *the* sense, whereas in the case of an idea one must, strictly speaking, add to whom it belongs and at what time”¹⁴. Thus, whatever the effects of poetic eloquence may be, they arise from an aspect of language-use that operates on a different level to that of the sense, and the logical content of thoughts.

Art requires “an affinity in human ideas” and the artistic use of language involves a *subjective* kind of “colouring and shading” of the sense. The hearer’s ‘job’ is to try to associate those particular ideas (sensations, images, emotions etc.) with the sense of the expression that the poet intends him to. The poet’s job is to encourage correct association, although the degree of success that he can achieve is *necessarily* indeterminate; for “it can *never* be determined” (emphasis mine) how far his intentions are realised successfully. There is a tension here. It seems that the activity of poetic language-use allows for the communication of something over and above the logical content of thoughts, reaching over into the subjective realm of ideas. The poet, say, seems to communicate something which acts as a guide for his readers’ association of ideas with sense, yet on the other hand the sense of what he says *is* the complete meaningful content of what he expresses. Frege seems to have left no room for the kind of communication that is needed for this account, as a result of his aligning the communicable with a particular conception of the objective. It should not be a surprise that he is largely silent on the matters of how this “colouring and shading” is communicated, and what he *means* by “colouring and shading”.

Frege may have had in mind a picture in which artistic language uses psychological cues or clues, ‘tacked-on’ to the sense, that direct or shape the translation process by which the sense of the expression is realised into ideas in the hearer’s mind. He hinted at a similar account of the aspects of stress, emphasis and so forth that make up the implicature that was discussed at the beginning of the section. However, the idea that there could be such cues or clues is itself deeply problematic. Firstly, there is the issue of

¹⁴ *Ibid.* pp. 60

how we are to know what to do with these cues and clues given that the realm of ideas is essentially private, subjective and hidden. This ties in with the matter of how we could come to an “affinity with human ideas” given that we can only *assume* that others’ ideas are like ours, and the broader problem of our being unable to talk about ideas given the essentially public nature of language and the *essentially* private (and incommunicable) nature of ideas. I will not go into the problems with Frege’s notion of intrinsically private mental objects here, however, I wish to draw attention to the fact that simply saying that the extent to which “the intentions of the poet are realized” cannot be determined, and thus consigning this whole practice to the uncertainty of the realm of ideas (like the exiling of other practices to the realm of psychology) does *not* amount to an explanation of what kind of linguistic practice this is, or how it works. We saw a similar kind of ‘fudging’ with regards to the distinction between passive and active voices, different cases, the role of stress and emphasis, implicature and so forth in the discussions above. Importantly, Frege does *not* resolve the tension between his theory and those communicative practices which seem to allow us to talk about what he sees as necessarily private and incommunicable aspects of our mental lives.

Frege characteristically deals with ‘awkward’ problem cases in everyday language-use such as these by pushing them aside, and saying they do not matter for his logical enquiry. Thus he is left with a growing pile of features of language which he has ruled out as irrelevant to its essential form, but which are undeniably there as real features of our linguistic practices. In this way, everyday language starts to look over-grown with regards to the essential job and underlying logical nature that Frege conceives for it. The tensions between Frege’s theory and its subject matter grow stronger because the forms of expression that the theory suggests are vague (ambiguous, imprecise, loose, fuzzy etc.) and need to be boiled down to their logical contents (or discarded if this is not possible), are part of real, functioning practices by which we make sense of and communicate with one another in ways incompatible with Frege’s theory. We *can* evoke ideas, images, sensations, emotional responses in one another through language, and we seem to have criteria for making sense of one another that are not exclusively logical. Frege is forced,

against his better judgement to admit this, albeit in a rather-half-hearted manner, and his unsatisfactory account of these matters is revealing.

Furthermore, this tension between theory and subject matter is visible in the language that Frege *himself* uses to describe these examples. He uses a *range* of different expressions, and descriptive terms to capture the ways in which our language-use seems to fall short of, overstep, or otherwise violate his logicistic conception of language. There seems to be no *one* way in which our expressions can fail to make sense by his standards (they might be vague, imprecise, inexact, ill-defined and so on), and there are a range of ways in which language seems to do more than he allows it to. Even within the realm of psychology, to which so much of language is banished, Frege draws upon a range of terms which suggest substantial differences and distinctions in the ways we can communicate information: *stress; emphasis; importance; reciprocal action; expectation; attention; highlighting* etc. He talks about different kinds of non-logical grammatical distinctions, such as those between: subject and predicate; nominative and dative cases; passive and active voices. This variety seems to suggest a range of *ways* in which we make sense of one-another, and suggests that an account of sense that ignores the *activity* of making sense, and reduces ‘sense’ to having content of a certain kind, may not give us the whole picture. Frege’s separation of the content of language and our forms of expression, leave these forms of expression with no role to play in our making sense of one another. But can all the differences we see in the form of expression be explained away as merely phenomenological, or psychological?

It is notable that we do *not* find examples concerning certain kinds of loose or ‘fuzzy’ expressions in everyday language that we take to make perfectly good sense. Frege’s *Begriffsschrift* allowed him to resolve certain kinds of sign / symbol confusion (“Hesperus” and “Phosphorus”, “Trieste is no Vienna”), and what Dummett calls “the solution of the problem of propositions with multiple generality”¹⁵ which had plagued philosophical logic since Aristotle. There are, however, forms of communication which *rely* on just the kind of ambiguity which his system has the power to make perspicuous,

¹⁵ Frege pp. 20

and we may not agree with Frege that we should do away with these once and for all. His failure to notice the *uses* of ambiguous expressions, the fact that they can be *knowingly* and *deliberately* employed, and the fact that he only discusses *problematic* cases of ambiguity reveals a rather blinkered approach to language. There is, for instance, no mention of the deliberate employment of ambiguous language as a form of suggestion or humour, like that we see in innuendo and punning¹⁶, nor of abstract or imagistic forms of poetry, or the workings of metaphor and simile. His account forces upon us the view that the poet always has a particular thought in mind when he chooses his expression, and that where we find an apparent ambiguity in literature the author must have meant either one or the other of the two possible senses of the word (phrase, expression). We may, however, want to leave space open for the legitimate use of words for their sound, or stress pattern, if not for the deliberate choice of words which imply more than one meaning, image, or idea and which leave “open to interpretation” the meaning of certain passages, phrases, expressions. I have been able to find no discussion of such things in Frege’s work.

Before turning to Frege’s strategy for resolving these matters, and the theory behind this, I would like to suggest a workable, minimally restrictive account of “determinate sense” which can accommodate the range of features and practices of language-use *and* the following ‘givens’ for an account of the logic of language, which were central to Frege’s thinking:

1. The sentences we speak (read write) make sense.
2. There are logical relations between these sentences, and the philosophy of language has as its business showing us what these logical relations are.

I will call this “the naïve conception”, and it can be summed up roughly thus: Sense is ‘determinate’ insofar as it allows us to understand one another, and to resolve those kinds of ambiguity, and confusion which we meet in communication. This ‘loose’, non-technical account is far removed from Frege’s logico-mathematical vision of sense and

¹⁶ (E.g. Mercutio’s describing himself as “a grave man” in *Romeo and Juliet*.)

language. However, the facts-of-the-matter of everyday language-use and linguistic practices can be happily accommodated in the naïve conception, because it imposes only pragmatic restrictions (i.e. only restrictions internal to the practices themselves) on sense. Whereas the naïve conception arises *from*, and *responds to* observations of the facts-of-the-matter of our everyday linguistic practice, I hope to show that Frege’s logicistic view of view of language and his conception of what “determinate sense” consists, conflicts irreconcilably with certain of our linguistic practices, and is unsuitable for accounting satisfactorily for certain others. Whilst the facts that the two conceptions respond to are the same, the attitude towards these facts and the forms of response that are offered are markedly different, for Frege’s account lays claim to features of the nature of language itself, whereas the naïve conception merely tries account for the features of its subject matter. It is in this difference that the metaphysical, and dogmatic undercurrent of Fregean logicism is revealed.

2.2 Frege’s wider logicistic theory.

Now I will turn to Frege’s theory of thought, logic and language and look at how this informs his account of determinacy and the nature of sense (which I will call “the post-theoretical conception”). Frege envisioned his formal symbolism, the *Begriffsschrift*, as a language ideal for the expression of thoughts. It would allow the structure of inferences (*the* processes of reasoning for Frege), and the thoughts about which inferential reasoning operates, to be exposed by means of their symbolic representation on the surface of the notation (perspicuity). Notoriously, he thought that everyday language was an entirely unsuitable vehicle for this purpose. Frege’s logically conditioned picture of the “crystalline purity” (PI §108) of an ideal language sits awkwardly with the forms of ‘fuzzy’ ‘loose’ expression which he saw in our everyday

linguistic practices. How he reached this conception of a language ideal for expressing rational thought, and why he thought there must be a separate logical level underlying real language, will explain his response to the tensions highlighted in the above section. This response does little or no justice to the range of communicative practices which we use everyday language for, a failure which cannot, in my view, be excused on the grounds that Frege had little interest in these.

James Conant brought my attention to the tensions between the range of features and forms of communication that we can observe in everyday language, and Frege's logicism with the following comment in correspondence:

...these forms of looseness that Frege allows are all to be strictly carved off of that weight-bearing part of the expression whose burden it is to convey thought (or "conceptual content", as Frege puts it). So these forms of looseness are, for Frege, external, as it were, to what is said by any thought that happens thus to be loosely packaged in them. The contours of the actual body of the thought that lies underneath such packaging is utterly independent of such fuzziness. Thought itself, for Frege, is never fuzzy!

As we will see for Frege, what we think¹⁷ is "determinate" by *any and all* standards of specificity, precision, definiteness, non-ambiguity and so forth. However, our everyday language only allows for an imprecise, loose way of expressing this, like loose, fluffy clothing draped around an exact form beneath it.

Frege's formal symbolism really did show clearly the underlying cause of certain forms of ambiguity and vagueness in everyday language, and allowed him to expose the logical form of certain kinds of expression that had plagued logic since Aristotle. These were truly remarkable philosophical achievements. However, Frege thought that an ideal symbolic notation would provide us with recourse to a tool which would allow *all* forms of confusion (imprecision, ambiguity etc.) arising from language-use in those human

¹⁷ At least when we are not simply confused, feverish, drunk etc.

practices that strove after truth (for him, the sciences) to be exposed clearly to view, and thus avoided. He took himself to have discovered a vehicle for the communication of the foundational aspects of forms of human endeavour (theory-making in science, and the basic concepts of mathematics) which he felt demanded *absolute* precision, rigour and clarity. Frege also thought that his symbolism exposed just how much of everyday language must be ‘carved off’ as potentially confusing and misleading, for these and everyday factual purposes. Everyday language, as a bloated and unsuitable vehicle for the communication of thought was thus “...cast in the role of a villain on which one must perforce rely, both in order to think and as a source of clues about the nature of thought.”¹⁸

Frege’s particular understanding of thought is the central influence on his vision of language. Indeed, his view of thought is tied into his conception of the *world* as can be seen in his comment that “A fact is a thought that is true.”¹⁹ For Frege ‘thought’ was comprised of judgement-making and drawing inferences. Burge notes the close connection between sense and this picture:

...the notion of sense is designed for an account of thought and judgement. The primary logically relevant function of thought and judgement is to ‘strive after truth’. Thus sense provides a logically relevant connection between judgement and truth.²⁰

Frege conceived of objects, and the concepts which they fall under as the ‘units’ about which thought (so conceived) operates. Thus he speaks of ‘conceptual contents’ of judgements. His focus on logical inference as the form of thought, and of judgements as (absolutely, and unambiguously) true or false thoughts about the world, led to an account of the nature of concepts, which his later account of determinate sense was built to accommodate.

¹⁸ Burge pp. 32

¹⁹ *TT* pp.307

²⁰ Burge pp. 31

Frege defines concepts with the requirement that they have sharp boundaries, such that “it must be determinate for every object whether it falls under a concept or not.”²¹ The determinate nature of concepts is one demanded of them “from the point of logic”²², but again what “determinate” means is not made explicit here. Frege states that a concept must be determinately true or false of each and every possible object, and seems to be drawing on an algebraic notion of determinate as ‘being unambiguous’. We can see this in Frege’s rhetorical question “...would the sentence ‘any square root of 9 is odd’ have a comprehensible sense at all if *square root of 9* were not a concept with a sharp boundary?”²³ Here we have a bipolar criteria for determinacy, in that objects are either ‘in’ or ‘out’ with regards to concepts, involving a degree of absolute precision, exactness or fine-grained-ness as might differentiate ‘3’ from, say, ‘3.001’ or ‘2.9•’. Frege’s thought is that so long as there is *any* room for inexactness here, it will remain an open question as to whether a particular object falls under a concept, and that this is unacceptable as the truth of inferences may not be preserved through a chain of reasoning; e.g. if the object is indeterminately in / out of a given concept in different premises. This final precision and exactness in concepts goes ‘all the way down; all ambiguity is ruled out by making concepts as ‘fine grained’ as the objects which fall under them (i.e. concepts must have ‘built in’ all detail necessary to include / exclude any and every possible object). In this way Frege ensures that there will be no logical problems about ‘which things thoughts are about’, and also sets up a standard for ‘determinacy’ that concept-*language* (at least) must live up to. It may seem that the Law of Excluded Middle underlies this rigorous view of concepts, but Frege did not see it as an independent element of the theory:

The law of excluded middle is really just another form of the requirement that the concept should have a sharp boundary.²⁴

²¹ *PW* pp.122

²² *FA* pp.87

²³ *CP* pp. 159

²⁴ *Ibid.* pp. 159

The important feature of determinacy here is that of *definiteness*. Concepts are described as being sharply bounded *regions* in logical space, again slightly different to the more algebraic view of non-ambiguity discussed above (which makes concepts look more like *points* than areas). The requirement on concepts is one Frege took a very strict, and even severe line upon:

To a concept without a sharp boundary there would correspond an area that had not a sharp boundary-line all around, but in places just vaguely faded away into the background. This would not really be an area at all; and likewise a concept that is not sharply defined is wrongly termed a concept.²⁵

The absence of sharp boundaries is, for Frege, the absence of *any* boundaries. This is surely because his notion of a ‘boundary’ is geometrical. If we define a boundary as “the limit enclosing or encapsulating a space” and where this ‘enclosing’ has the same sense as that in mathematical definitions such as that of a triangle: ‘a three sided *closed* planar figure’ then Frege’s point becomes clearer. Similarly a geometrical line is infinitely, perfectly thin, and there is no room for a region which is vaguely bounded just as there is no place for concepts such as: a point that has extension; or “a triangle whose lines do not share a terminal point with the other lines”. Frege’s use of this mathematical species of definition is a notable feature of his account of determinacy in sense and concepts, as it yields a particularly strict line on the illegitimacy of indeterminate forms of these.

Given the view that language is the vehicle for the communication of thoughts, and this account of thought we should expect Frege to divide language up into: a part about objects, tying our thoughts and judgements to the facts of the matter which they concern; and a part which is just about thoughts, because we can make judgements independently of our knowledge of the facts, and we can talk about that which does not exist,. This is just the division that we see him make between *Sinn* and *Bedeutung*. Frege spends much more time in *On Sense and Meaning* discussing *Bedeutung*, showing that the truth-value of a sentence *is* its *Bedeutung*, and we are offered a comparatively thin picture of *Sinn* as

²⁵ *Ibid.*

the thoughts, or “judgeable contents” of an expression or sentence. Weiner characterises Frege’s conception of sense as

...what is understood when an expression is understood. But it is important to note that this is correct only insofar as what is understood is relevant to determining the truth values of expressions of which the expression is a part.²⁶

Frege says little more than that there is in language a *something-or-other* that allows language to do the ‘job’ of expressing thoughts and communicating the contents of judgements and inference (as he conceives these) which Frege requires of it. Frege elsewhere defines *thoughts* as “something for which the question of truth arises...”²⁷ and we can see that the theoretical elements of Frege’s account are interrelated to such a tight degree that that their definitions amount to little more than a description of *how they are interrelated* in his theoretical system.²⁸

Sense has, by now, been limited to *only that which bears on inferential thought*, and this definition rules out language used to communicate about anything other than ‘conceptual contents’ – i.e. that which has no direct role to play in the kind of inferential thought and judgement that Frege is concerned with. Frege took his characterisation to concern the *nature* of sense, so what can be a part of sense *at all* is limited to those aspects of language that bear on judgements, inference making, and otherwise determining a sentence’s place in inference. Thus ‘making sense of what someone says’ comes to mean something like; understanding the information relevant to rational inference and judgements about the world that is contained in their expression. This is a substantial limitation, which takes us far from what normally mean by the ‘sense’ of someone’s words, and which effectively outlaws a range of ways in which what someone says can make sense, or fail to do so. The essential form of language (where language has anything to do with truth) is limited to accommodate Frege’s mathematical / scientific

²⁶ *Ibid.* pp. 123

²⁷ *TT* pp. 292

²⁸ This theory rendered certain of its own terms indefinable - see Addendum 2

concerns. This account of sense ties up together: a particular picture of what sense *is* (determined by the job it does); and the thought that it *must be so by its nature* (that it must be composed in such a way that it can do this job). This again reveals a mathematical turn to Frege's thought – think of how the properties common to all triangles 'fall out' from its geometrical definition.

A further feature of this account is that an expression either has one unique sense or it has no sense at all, a result of the thought that it cannot be *the sense* of an expression that is indeterminate (just as a concept's boundaries must be sharp). As Burge notes, an expression may be associated with "a cluster of senses" (pp. 35), but this is an aberration resulting from improper language use – rather like the *Tractatus* sign / symbol confusion – and each of these senses itself must be determinate. The very idea of an indeterminate sense is incoherent for the Fregean, as it would violate the nature of sense. Frege is thus brought into opposition with our ability to make sense of vague, ambiguous, or rough-and-ready expressions, to make sense of non-literal modes of language-use, and to make sense of terms that (by his lights) are ill-defined and denotation-less.²⁹ Frege is forced to say that *these have no sense at all*, as they don't contain information of a kind that enters into thought as he conceives of it. Frege's views do not allow us to say that something "makes quite good sense", or that an expression *properly understood* can have more than one sense. The absolute accuracy and exactness in this conception is seen in the fact that if an expression makes sense, no further questions can be asked about it, apart from perhaps those concerning how it relates to other thoughts. A Fregean 'sense' is ideally clear and distinct, leaving no questions to be asked about the conceptual contents that it contains, and at the same time, *no room for it to contain anything more or other than these contents*.

The central tension here is that between: on the one hand, Frege's recognition of a space in our linguistic expressions, and communicative practices for "fuzziness" in a variety of forms; and, on the other, his view of language as built to do the job of

²⁹ Examples of vague concept-terms that Frege took to be problematic or senseless: Dummett mentions "red" and mountain" (pp. 373); Burge "heap" (pp.37); and Weiner "bald" (103).

communicating (Fregean) thoughts. (Burge sees this as a gap between Frege's rationalist and more work-a-day accounts of what it is to grasp a sense.) Frege cannot admit the reality of the 'forms of fuzz' in everyday language, as the fuzziness *cannot* enter into thought, nor could he allow *substantial* differences between these forms. Our mistakenly loose language was to be explained by the psychologist (as resulting from our psychological make-up and its limitations) or as mere apparitions, phenomenal differences between terms / expressions that had nothing to do with meaning or reasoning. By limiting his account of sense to certain features of the kinds of language which interested Frege, we end up with a picture of sense far more stringent, and severe than that which the examples of everyday language-use suggest (even those that find a place in Frege's writings). From the beginning, Frege was unhappy with certain grammatical distinctions in everyday language and certain of our linguistic practices. Although, as he himself describes them, these seem to take a variety of forms, and there seem to be some real differences between them, these differences and distinctions began to look ever more unattractive in contrast with the particular, singular, univocal and unified account of sense which he reached.

Thus, as Michael Kremer notes (paper forthcoming) with regards to what Frege called the "discernable difference" in sense between passive and active voices.:

"Frege's [*Begriffsschrift*] account of conceptual content led him to reject the traditional distinction between subject and predicate as irrelevant to content. His initial example of sentences with the same content showed that the same thing can appear as subject, or as predicate, without changing the content"

Similarly, the artistic practice of 'stretching of sense' in poetic use fell by the wayside:

What is called mood, fragrance, illumination in a poem, what is portrayed by cadence and rhythm, does not belong to the thought.³⁰

³⁰ *TT* pp. 295

Stress and accentuation become “suggestions [that] make no difference to the thought”³¹ for they, like differences between voices and cases “do not touch what is true or false”³². So when Frege makes the apparently innocuous comment that, with regards to truth “Only those sentences in which we communicate *something* come into question...”³³ (my emphasis), he is actually imposing substantial restrictions by means of his particular view of what kind of ‘something’ can be communicated. He thus effectively rules out a range of everyday forms of communication as illegitimate, extra-rational or irrational.

Sense, like the other central and inter-related features of Frege’s logicism, is defined by the job it does, its role in his systemic account of thought and the world. The job for language and thought that concerned Frege was mathematical and scientific. This job is indisputably done, for we really do have mathematical, logical and scientific practices, and we communicate successfully about these. The *transcendental* deduction – in a Kantian sense – that Frege makes, not in any one place in his thinking, but gradually, almost imperceptibly through the development of his theory, is that thought and language must have an underlying *nature* such as can allow this job to be done. Just as it seemed that the nature of thought must mirror that of the world (scientifically conceived) in order for us to be able to have this kind of understanding, and these scientific practices of investigation and discovery in the first place, Frege thought that language must have a form that mirrors that of thought so as allow for the communication of this understanding. Thus sense is built for theory-making:

Where senses are ways of thinking ideally or purportedly appropriate to a true theory, they are ways of thinking that ideally or purportedly reflect reality. Frege believed that vagueness could not infect reality itself – the objective entities which our thoughts denote.³⁴

³¹ *Ibid.*

³² *Ibid.*

³³ *Ibid.* pp. 293

³⁴ Burge, *Ibid.* pp. 52

In short, Frege felt that the medium for expressing scientific thoughts and concepts must be as fine-grained, precise, exact, and well-defined as this kind of thought. What Frege's thought lacks is the recognition that science is *one* particular form of investigation, one conception of the world and truth, *amongst others* and that it may not be best conceived of in isolation. Thus he leaves no room in language for the expression of forms of thought that aren't compatible with scientific practices and reasoning (as he conceives of them), and creates a theory which makes interactions between the two troublesome if not mysterious or impossible.

The properties that Frege saw in our scientific and mathematical forms of understanding are built into his idealised vision of the essence or nature of language that he gives. It has a structural, compositional form like objects for the physical sciences, it is as 'fine-grained' as any and all forms of enquiry and investigation require, and it allows for the ideally precise and exact distinctions of mathematics. This is the reason why there is no definition offered of determinacy; it is a term which answers to any and all of the demands and standards of rational thought and enquiry, conceived on a mathematical / scientific model. All of these properties, in idealised form, inform the notion of "determinate sense" in language, for sense is the aspect of language which contains all kinds of precision, exactness, clarity and so forth that we find in these fields, by its nature. Language not only inherited the ability to capture the precision, exactness etc. of scientific kinds of rational enquiry, deduction, and inference but these were projected into its *form* or underlying *nature*. It should be no surprise then that unified structural form underlying all this was logic; the most abstract and idealised formal system of rules and relations.

The communicative conventions and linguistic practices which seemed merely unimportant to Frege at the start of his work, begin in the context of these wider views on thought and logic, to take on a more dangerous and threatening appearance. Frege initially regarded these as merely extraneous to the forms of thought and language concerned with truth, but as nevertheless useful and real parts of communicative practice.

Indeed, Frege himself appeals to “the general feeling for the German language”³⁵ in his readership with regards to the form of elucidation in his work. However, on the view that this logical form is *essential* to thought and language, artistic (humorous, imagistic etc.) kinds of language appear as distortions of the real logical form of thought. These departures from what Frege took to be the ‘real’ business of thinking and the ‘real’ nature of thought (the scientific search for truth) create forms of expression which give an illusory and distorted appearance of the world and our reflections upon it. The practices which support these appearances thus seem to conflict with what language is *really* about and what job it should do, and as we shall see, Frege is led to take a far more severe line on these things than that we find in his initial comments.

The methodology, or philosophical apparatus which Frege applied to language, was that of *analysis*, his conception of which feeds into his thoughts about the structural nature of thought and language. He took linguistic / conceptual analysis (on the model of the physical sciences) to be the as the process of breaking down complexes into their components, which leads ultimately to primitive ‘simples’. As Dummett puts it:

A logically simple expression is, for [Frege], merely one which is not composed of subordinate expressions each possessing its own sense and contributing to determining the sense of the whole.³⁶

Furthermore, certain of the technical terms in his theory (e.g. ‘function’, ‘true’ and ‘object’) are indefinable, and simple “in some more ultimate way than that of words which merely happen to have been introduced otherwise than by definition”³⁷ The possibility of a *final analysis* of an expression was important for Frege because it seemed to him to underlie our very ability to make definitions. Without some ‘bottom level’ to which things could be broken down, it seemed that we would slip into an infinite regress of pseudo-definitions - themselves containing complex expressions in need of further analysis:

³⁵ *CP* pp. 45

³⁶ *Frege...* pp. 25

³⁷ *Ibid.* (See Addendum 2)

To be sure, that on which we base our definitions may itself have been defined previously; however, when we retrace our steps further, we shall always come to something which, being a simple, is indefinable, and must be admitted incapable of further analysis.³⁸

So, at the level of logical (*not ontological*) simples the possibility of analysis and the requirement for definition (and thus for determinate boundaries) simply drops away. Frege clearly took ‘being a composite’ as essential to being definable, in the sense that something that can be defined is composed of component parts. In this way, at the ultimate logical level of reality all investigations, analysis, and questions of meaning come to an end, for these simples can admit of no confusion, problems and difficulties of the kind Frege wishes to resolve in language. These simple expressions are depicted in purely negative terms: as being indefinable, as permitting of no further analysis, and as having no characteristics other than being *a linguistic (conceptual) something* with these properties. We know of their existence not by any discernable features of the simples themselves – as Dummett notes Frege “nowhere discusses under what conditions the sense of a word should be recognized as simple”³⁹ – but rather because, logically, there must be a level of language at which analysis can no longer be carried out. This is the ‘safe; i.e. ideally unproblematic logical foundation-level of language.

A similar fear of regress underlies Frege’s post-theoretical notion of determinacy of sense. Recall that the naïve conception stated that sense only need be as determinate as our needs dictate, i.e. so as to allow us to settle ambiguities arising in language-use. For Frege, this settling of ambiguities, or resolving of potential confusions, rather like the business of defining, *had to come to an end* somewhere. For Frege this end-point was not one determined by pragmatic purposes (our being requirement that the expressions we use be unambiguous) but by logical standards of precision. Why did he think this? It is clear that he took this to be a requirement, entailed by the fact because we really do have

³⁸ *CP* pp. 113 Wittgenstein’s thoughts on this matter in *NB* pp. 64 go along similar lines.

³⁹ *Ibid.* pp. 25

definite, well defined thoughts of the sort that can allow for scientific theory making, explanation, and investigation. These kinds of investigation *do* offer truths and true theories about the world. For thoughts of these kinds to be there at all in the first place Frege thought there must be something solid (beyond question, unproblematic by its nature) supporting them like foundations, and thus the very existence of scientific thought and practices itself seemed to require a solid logical base.

Many kinds of uncertainty as to what someone means, and confusions arising from vagueness or ambiguity (at least in the fields of thought and communication he was interested in) can be resolved by applying analysis to expressions. For Frege this was because analysis brings us closer to the level of these linguistic elements, the level of thought and language at which certain problems (such as ambiguity) simply *cease to be*. Thus the *Begriffsschrift* notation was designed as a symbolic representation of the structure of language at this level of the ultimate underlying set of primitive entities and inferential laws. It was a symbolism representing a logical layer of reality at which the nature of things is perspicuous because the fundamental laws of reasoning (under his particular conception) were laid out. Logic sat, reassuringly, underneath everything else, ensuring that it all would make sense (in a common-or-garden way) in the end. This ensured, in rational thought and discourse, an end to all confusion, ambiguity, and misunderstandings. So, logic acts as both a foundation for rational thought, and the end-point for investigations into meanings and concepts. As I mentioned above, Burge sees this as a streak of Rationalism in Frege, noting “the confidence that a deep rationale underlay many of our practices...”⁴⁰ which followed from a presupposition “...that mathematics and other cognitive practices are founded on deeper rationally understandable aspects of reality, than anyone may have presently understood.”⁴¹ This ‘deeper’ level is surely that of the rules of inferential thought – i.e. the laws of logic. These rationalistic considerations not only influenced Frege’s conception of what sense was, and what it was to *fully* grasp a sense⁴², but also his picture of thought. In both of

⁴⁰ *Ibid.* pp. 44

⁴¹ *Ibid.* pp. 43

⁴² Roughly to be able to explain an expression’s meaning so that it was completely unambiguous, and use it in inferential reasoning.

these logical considerations had primacy and were assumed to operate quite independently of other aspects of thought (naïvely conceived).

The ideal view of language that we find in Frege's logicism was won at the cost of his being able to do justice to the flexibility and variety that we find in real language-use. A range of human practices now seem to reside in the shadowy uncertain world of ideas, or psychology and how they can work at all, or interact with this partitioned-off logical realm seems problematic. How would the power of language to soothe, or enrage be explained on Frege's picture? The pragmatic aspects of making sense of one-another which allow for a great deal of loose, vague, imprecise, fuzzy forms expression, and can even rely upon these, *may* have a decent psychological explanation. However, the assertion that all non-factual language-use and thought are psychological, and play no role in science and mathematics seems to me dogmatic. Are we to accept that the poetic arts, literature, critical theory etc. can all be reduced to psychology? Furthermore, Frege's account implies that inspiration, imagination, elegance, and sensitivity have no real place in scientific discovery, invention and theory-making. Frege spends little or no time on forms of language anomalous to his logicism, and seems to have regarded them as either: *problematic*, as they encouraged us to depart from properly logical forms of thought and expression, engendering misunderstandings and confusion; or as merely psychological add-ons to language that helped us to overcome the cognitive weaknesses that slow down or impede rational thinking.

In contrast, Frege's conception of the *Begriffsschrift*, was that of a language which the structural form of thought, i.e. its compositional nature, and the logical relations between the elements which made it up, would be revealed as they truly are on the surface of the notation. The *Begriffsschrift* was the structure of thought turned into symbols and signs on paper, a structure that everyday language could only approximate (and poorly). Thus his ideal language seemed to make the shortcomings of our flabby everyday version for the communication of rational thought plain, but it did so at the cost of imposing a particular conception of rationality onto thought and language. The forms of error, confusion and ambiguity in everyday language could be explained as ushering

from the gap between everyday language and real (truly rational) language, but only by attributing the gap to psychology or the *shortcomings* of the former language. While Frege thought that the logico-grammatical form of language was the ‘ultimate’ level of language for rational thought, and could explain and overcome the problems with the communication of this thought, this was because these are the only problems which *his symbolism has the power to explain*, tailored as it is to a particular conception of rationality. Once we open up our conception of rational (or that of scientific thought), and take it out of the vacuum in which Frege conceived of it, this account begins to look somewhat shaky.

In contrast to the extended discussion we find of the structural, logical aspects of grammar and language-use, Frege says very little about the forms of loose expression (of “fuzz”) which do not fit with his larger theoretical picture. He often just states that these things do not concern him, and offers little or no justification of why they should be ‘relegated’ to the realm of the irrelevant, other than that they do not fit with his interests with regards to language and thought. Frege’s comments about the translation of expressions from everyday language into an ideal language show clearly that, as Conant suggests, Frege took it that in truth the ‘loose’ parts of everyday-language expressions should be ignored or discarded utterly. He comments on the replacement of pre-systematic terms: “the sense in which this sign was used before the new system was constructed is no longer of any concern to us”⁴³. Elsewhere he bluntly remarks that “How things are in ordinary language is of no concern of ours here”⁴⁴. Even the issue of ‘correct translation’ from everyday to *Begriffsschrift* forms of expression itself was regarded as entirely unimportant by Frege, because in his ideal symbolism not only systematised the mode of expression of thoughts, but purported to reveal the actual concepts hidden in the terms of everyday language. We would thus lose the hankering to try to hold on to the shadowy forms of expression that our everyday language permits, having been shown ‘what we really meant’ by them. In other words, all that got lost was just stuff that we don’t need.

⁴³ *PW* pp. 211

⁴⁴ *Ibid.* pp. 178-9

So what did Frege take to occupy the ‘extra space’ allowed for by these forms of “looseness” or indeterminacy of sense in everyday language? What would he say about our linguistic practices that seem to involve the communication of *subjective* ideas, emotions etc.? The theoretical boundaries on sense which Frege ends up with, makes it extremely difficult for him to account for “the colouring and shading” of sense, the communicative conventions, and ‘fuzzy’ words and forms of expression which we find in every-day language. Some of these were, taken by Frege to be merely psychological heuristics to aid understanding, and I have voiced some reservations about this already. With regards to the artistic, religious, and other ‘anomalous’ forms of language, Frege was clear that the emotional, the aesthetic, the imaginative, and all other kinds of subjective mental activity and experience had nothing to do with thought, and no place in language. Indeed, where we mistakenly run-together imagination and thought in language we commit a fundamental error, by which “the boundary between the subjective and the objective is obliterated”⁴⁵.

Thus I think that Frege took there to be *nothing* filling up this extra space. In other words, the looseness of everyday language itself creates the illusory impression that we do talk about things which cannot feature in (rational) thought or language. Artistic, poetic and other forms of language which we think we use to communicate about non-scientific or rational aspects of the world are just appearances, mere phenomenological shadows. Everyday language thus infects our thinking by creating a realm of illusions such as; that our rough-and-ready terms have meaning; that we can talk about the emotional, the aesthetic, the religious, and the ethical. They have no place in Fregean language or thought. Thus everyday language not only seemed to create problems in the communication of (what Frege would count as) thought, slowing down intellectual progress, but it also seemed to create a variety of illusions which distract us from this kind of enquiry and pervert our understanding of the world.

⁴⁵ CP pp. 79

Weiner writes that Frege only advocated our abandoning everyday language for the purposes of giving a foundation to the sciences, and he does seem to have realised that our psychological limitations might severely limit the practical value of a formal symbolism. It is notable that in spite of Frege's adamant anti-psychologism (as we can see in his attacks on Husserl) he was quite happy to dump those aspects of language which did not fit with his picture of rational thought and enquiry into the lap of the psychologists. Frege's qualifications on the use of his *Begriffsschrift*, are, I argue, far less generous than they seem. Importantly a range of kinds of human thought, expression, and a range of communicative practices end up (at best) awaiting *scientific* explanation (we mustn't forget Frege's cognitive-scientific view of psychology) or (at worst) illegitimate, misleading or illusory under this vision. The following quote, part of which I drew upon earlier, shows the degree to which Frege's theoretical views had come to delimit what he took to count as sense *at all* by the time he wrote the *Grundgesetze der Arithmetik*. It highlights the fact that Frege came to impose over large parts of language a vision tailored for mathematics, and the sciences. It also reveals the extent to which Frege's singular concern for these aspects of thought and the world encouraged him to lose sight of (ultimately to deny the validity of) certain kinds of thought and language which did not fit with his restrictive theory:

...would the sentence 'any square root of 9 is odd' have a comprehensible sense at all if *square root of 9* were not a concept with a sharp boundary? Has the question 'Are we still Christians?' really got a sense, if it is indeterminate whom the predicate 'Christian' can truly be asserted of, and who must be refused it? ⁴⁶

The differences between the contents of these two expressions (the number '3' and the concept of 'a Christian'), which seem to have become obscured from Frege's thoughts, are surely plain enough. Frege is led by his logically conditioned reflections on language, and his desire to expose its true underlying form, into a particular, and highly limited view of what it is to make sense. I argue that he lost sight of the facts about our every-day

⁴⁶ CP pp. 159

language-use, and failed to offer a decent account of those practices which did not sit well with his theory, preferring rather exiling them from the rational. More importantly, his theory took him to a position from which these could not be explained other than as extra-rational or irrational. This artificial and restrictive partitioning of language does little justice to a range of our practices of thought and communication which we may want to say have an important place in 'the rational'. I will now substantiate the claim that Frege is led to this position by a *metaphysical form of enquiry* by looking at Wittgenstein's *Philosophical Investigations*.

3. The Investigations Account

I have offered a picture of how Frege was led into a view of language which imposed severe restrictions on what language could do, justified by purporting to show its nature, or essential form. We have seen that where this vision conflicts with certain facts about the subject matter which purports to explain, the theory predominates. It is the purpose of this section to draw out the *Investigations* account of where and how Frege went wrong (or at least an important aspect of his error). In so doing, I also hope to reveal certain aspects of ‘later Wittgenstein’s’ conception of how a philosophical investigation can take a metaphysical shape.

I have suggested that Frege’s view of conceptual contents reveal a mathematical streak in his conception of “determinacy”. Wittgenstein highlights brilliantly how far from everyday practices this approach of carrying the qualities of the idealised forms of mathematics over into actual human linguistic practice brings us:

71. ... Frege compares a concept to an area and says that an area with vague boundaries cannot be called an area at all. This presumably means that we cannot do anything with it. –But is it senseless to say: “Stand roughly there”?

Here Wittgenstein begins to open up the possibilities which Frege ends up ruling out as impossible or unacceptable because they conflict with his logicism. This is a subtle challenge to Frege’s application to language of geometrical standards of what it is to be well-defined or determinate. By posing this rhetorical question, Wittgenstein brings our attention to what Frege would be *bound* to say by the terms of his theory that as ‘vague’ or ‘loose terms’ cannot stand for any conceptual content, “Stand roughly there” has no determinate meaning, and is senseless. He also brings out that even in the fields Frege was interested in (mathematics – where an area with vague boundaries cannot figure) our

being able to “do something with” a concept, its use for us, has a role to play in its importance.

How can simply posing the question of whether our apparently “fuzzy” terms actually work act as a counter-argument to Frege? Well, we can make perfectly good sense of this expression – it works just fine, only *not* for the purposes Frege envisaged for language. Wittgenstein is just saying; ‘this isn’t scientific, but we can make sense of it!’ This *isn’t* a counter argument, but simply a suggestion of a feature of language-use that brings out the contrast between the facts of the matter and where Frege’s theory leads us.⁴⁷ At the start of Frege’s account we are encouraged initially to ignore certain features of everyday language, as they are not relevant to his concerns. Through the development of his theory Frege overlooks, brushes aside and ignores certain facts about everyday language, considering and building his theory to explain only certain features of language-use. In the final reckoning, Frege requires that we abandon our naïve understanding of these side-lined kinds of language as meaningful (in his sense), for they do not sit with his picture of the essential nature of language. Wittgenstein’s attempt to reverse this process, to bring our understanding of language back from the logicistic extreme that it reaches in Frege, relies on an extremely subtle method.⁴⁸

Remark 71 is a fine example of this method for freeing interlocutor(s) from metaphysical, dogmatic or doctrinal kinds of philosophising. Baker puts his finger on what Wittgenstein is up to here, and explains it succinctly thus:

The philosophical activity of dispelling grammatical illusions is very different from the one of working out and mapping the logical geography of ‘psychological concepts’. It more often consists in *taking note of possibilities to which one is blind* than of establishing facts of which one is

⁴⁷ It has been suggested to me that, in light of Frege’s special treatment of imperatives, Wittgenstein chooses a weak example here, but I do not think that Frege’s theoretical apparatus for dealing with this kind of statement will allow him to make a reply to the kind of line that Wittgenstein is taking here – one which takes issue with the form of his investigation, and its aims, not with the letter of his theory.

⁴⁸ This is not the *only* method he offers for counteracting, or helping to dissolve the metaphysical urge. However, it is one that I believe Wittgenstein thought appropriate for certain aspects of Frege’s theory.

ignorant. Too limited a range of possibilities (or too narrow a diet of examples) often gives rise to interminable debates amongst philosophers, so that *a dissolution of problems may consist in calling attention to further possibilities...*⁴⁹ (emphasis mine)

Baker's idea is that Wittgenstein opposes dogmatism, *and avoids it in his own philosophising*, by sketching out possibilities rather than posing knock-down arguments. This method works by bringing to our attention simple, apparently trivial examples of language-use that are easy to miss when in the grip of philosophical reflection. Wittgenstein clearly took this method to be important, even central to philosophy; he notes that "*The work of the philosopher consists in assembling reminders for a particular purpose*" (§127 emphasis mine). The hope is that consideration of these examples may coax us out of deeply engrained tendencies to look in certain places for answers to our questions, and to take certain problems, and examples as showing us what is essential about a particular subject matter.

Wittgenstein's *method* reveals an understanding of the root of the metaphysics we see in Frege's logicism as lying in the *way in which he approaches his subject matter and his conception of the kind of project in which he is engaged*. I have tried to show above that Frege's attitude to the facts and examples of everyday language reveals a particular shape to his thought, and rationalistic tendencies and concerns in his thinking: a central emphasis on the sciences; a scientific species of definition; a desire to get down to the essential features of language. Through the development of this project, which Frege took to be that of disclosing the essential form of rational language, we see him imposing increasingly restrictive limits on what can be part of language, and how language must work. Wittgenstein's line of reply to this is to open up the examples and features of language use to which this account should be responsive. This should be contrasted with the univocal *Tractatus* view that metaphysics is a kind of illusion created by a mistaken use of language, or a mistaken understanding of the language we use when doing philosophy (*TLP* 6.53).

⁴⁹ *Wittgenstein's Method* pp. 134.

If we jump ahead in the text a little, we find an account of the role of analysis in the Fregean / Tractarian conception of language that reveals the process of reasoning by which we are led to idealism, driven by the need for final answers (what we might call ‘the metaphysical urge’). This process is one of building a theory along (roughly) the following lines: looking at something, taking certain of its features to be characteristic/fundamental; then building a theory of *what must be the case* in order for these features to be possible; and finally looking back at the thing and taking those of its features or aspects that align well with our theoretical postulations to be *essential*. Hence, in forming an account of something which aims to cut through to its essence, our examples, method and conception of (attitude to) the object of investigation are tied up together in the account and change together as the account develops.

90. ...Our investigation is therefore a grammatical one. Such an investigation sheds light on our problem by clearing misunderstandings away. Misunderstandings concerning the use of words, caused, among other things, by certain analogies between the forms of expression in different regions of language. – Some of them [misunderstandings] can be removed by substituting one form of expression for another; this may be called an "analysis" of our forms of expression, for the process is sometimes like one of taking a thing apart.

91. But now it may come to look as if there were something like a final analysis of our forms of language, and so a *single* completely resolved form of every expression. That is, as if our usual forms of expression were, essentially, unanalysed; as if there were something hidden in them that had to be brought to light. When this is done the expression is completely clarified, and our problem solved.

It can also be put like this: we eliminate misunderstandings by making our expressions more exact; but now it may look as if we were

moving towards a particular state, a state of complete exactness; and as if this were the real goal of our investigation. [*my emphasis by underscoring*]

We should note, firstly, how the ideal of exactness (determinacy) that is enshrined in Frege's idea of conceptual contents sits in a reciprocal relation with his method, and tools (the idea of analysis); feeding into it, and off of it, in turn. He starts from a vague, undefined notion of what it is for an expression to be determinate, and certain problem cases of ambiguity, vagueness or other forms failure of exactness in our expressions: "Every sailor loves some girl"; "The Evening star is the Morning star" etc. This is then combined with the fact that analysis of a certain kind makes a certain kind of 'breaking down' or 'parsing' possible. That this deconstruction allows Frege to resolve certain problems – e.g. those of multiple generality, and the identity relation between two words sharing a referent – seemed to expose the underlying nature of language (its grammatical or logical form). Thus, he is lead to think that the end of analysis (taking apart) is the final reduction to its component primitives of something which is by *nature* a composite having a certain kind of structural form. Frege's understanding of the nature of what these primitives are, and of what analysis reveals about the objects to which it is applied is shaped, as we saw, by the demand for the kind of final exactness which he saw as required by the sciences.

Frege's understanding of what it is for a proposition to have a determinate (exact, definite) sense hardens into something like: "being composed of primitives or simples in legitimate combinations, and relations". At the same time, his understanding of a logically simple expression hardens into its *allowing for no ambiguity*, i.e. that which by its nature cannot support the mistakes which our ideal of exactness started out trying to resolve – the *possibility* for confusion is thus ruled out by the nature of simple expressions (the "something hidden" in our expressions, and the level of "a state of complete exactness" in language). The thought behind the positing of simples is simply that, as there must be an end to analysis, there must be an end to the problems that it helps us to resolve. Because analysis takes us to the underlying elements behind a

composite structure, that which can be analysed must, it seems, have a composition which ultimately rests upon fundamental elements which admit of no further confusion, ambiguity, imprecision etc.⁵⁰ Just as if there are to be concepts at all, there must be well-defined concepts, for there to be sense in language, there must be determinate sense. In this way a particular kind of analysis that Frege started out employing to resolve particular problems with language came to look like *the correct* kind of treatment of language (with regards to exposing its rational content), and these problems take on the appearance of being ‘special’ – being problems which show us something about the nature of language itself (about its essential structural form).

We have here a kind of evolution, involving an interactive feedback between: 1) certain facts of the matter (the particular cases and examples which Frege concerns himself with); 2) the method which we apply to this subject matter; and 3) an ideal conception of the end-point of the project – i.e. the view that there is a way of accounting for language and resolving its problems once-and-for-all by finding answers in terms of its fundamental essence and nature. This process is something like looking back and forth between our account and the object of study, carefully checking them against each other. Finding that the two match so well, we may assume that we are on a path to complete clarity (final answers) about this subject. We may also *forget* to pay attention to (or to see the need to satisfactorily account for) certain features of the subject matter which do *not* fit into this theoretical vision. This is the root of dogmatism, or blinkered-ness in Frege’s approach to language and Wittgenstein tries to undo it by bringing us back to a more work-a-day view of things. As Wittgenstein puts it himself, in *Zettel* (§444) when talking about the thesis that every proposition is a picture:

...it is the characteristic thing about such a theory that it looks at a special, clearly intuitive case and says: that shows how things are in every case. This case is the exemplar of all cases.⁵¹

⁵⁰ Hence in *TLP* every proposition is composite or a complex concatenation of names (4.22, 5.5261), and the requirement for simple expressions is the requirement for determinate sense (TLP 3.23)

⁵¹ Interestingly, this comment mirrors *NB* 1915 (pp. 50): “The way problems arise; the pressure of a tension which then concentrates into a question, and becomes objective”

In just this way, and *in spite of his purporting to take a scientific approach to these matters*, Frege from the very start takes certain cases to be important with regards to the logic of language, and ignores those uses of language which strike him as anomalous (i.e. that do not conform to his account of rational thought). He ends up with an account of the nature of language which not only cannot do justice to these anomalies, but *unlike a scientist* – who would take such data to indicate a shortcoming in his theory (incomprehensiveness) – Frege takes these to indicate failures of everyday language or our rational capability. So for Frege theory predominates over the facts (data) and this is a shortcoming even if we are sympathetic to his scientific approach to language.

During the course of this kind of investigation, the theoretical elements and our view of the subject-matter are refined in unison, or shaped in harmony with one-another. Frege's investigation thus gradually takes on the character of being an investigation into *essential* problems with rational language (and not just with *certain kinds of problem* in language), and he assumes that it is leading him towards an understanding of the *underlying nature* of such language. His conception of both: what he is doing, or what kind of account he is giving; and of that which he is thinking about (a large part of language) grow up together. The aim here is to give a final or *definitive* account of the language of rational thought, and the form of this project is metaphysical.

Frege's theory says that language concerning truth and rational enquiry *must* have a particular form, because he projected into language those features and properties which could explain the particular problems in language-use that were of issue for his conception of rationality. In particular the notion of determinacy of sense that we see in Frege is built in response to these concerns, and is visibly shaped by them. This process of idealisation with regards to Fregean determinacy ('exactness' in *PI*) is the target of remark 88, where Wittgenstein considers *why* Frege would say that "Stand roughly here" has no sense. Again, I have added emphasis by underlining:

If I tell someone “Stand roughly here” – may not this explanation work perfectly?...⁵²

But isn't it an inexact explanation? – Yes; why shouldn't we call it “inexact”. For it does not mean “unusable”. And let us consider what we call an "exact" explanation in contrast with this one. Perhaps something like drawing a chalk line round an area? Here it strikes us at once that the line has breadth. So a colour-edge would be more exact. But has this exactness still got a function here: isn't the engine idling? ...

"Inexact" is really a reproach, and "exact" is praise. And that is to say that what is inexact attains its goal less perfectly than what is more exact. Thus the point here is what we call "the goal". Am I inexact when I do not give our distance from the sun to the nearest foot, or tell a joiner the width of a table to the nearest thousandth of an inch?

No *single* ideal of exactness has been laid down; we do not know what we should be supposed to imagine under this head -- unless you yourself lay down what is to be so called. But you will find it difficult to hit upon such a convention; at least any that satisfies you.

So Frege's notion of determinacy is undefined because any definition would fall short of the required ideal – “you will find it difficult to hit upon such a convention; at least any that satisfies you”. Fregean “determinacy” amounts to the absence of any possibility for confusion, ambiguity, vagueness or other form of inexactness. The goal that Frege had in mind was giving a foundation for mathematics and thus for the physical sciences (mathematics being the pure form of these), and this is mirrored in his criterion for exactness – one which required the kind of absolute precision and definiteness that is only possible in the abstract forms of definition we see in mathematics (e.g. geometry). This mathematical drive for utter exactness and precision is reflected clearly in his logicism. However, Frege is talking about language *not* a mathematical symbolism, and

⁵² The full sentence here is finished with the question “And might not my other one fail too?” – Wittgenstein is here pointing out both that everyday explanations do their job quite well enough without logical precision, and that even the kind of sentences which he and Frege took to be completely (ideally) formulated might fail to be understood by others (that even in logic the end point of total, final clarity might be a mirage).

his fencing off of certain kinds of language as suitable for the communication of rational thought, and the conception of rationality that feeds into this are not *justified* by his particular interests, but only *determined* by them. Frege's notion of determinate sense is one in which we can see his particular concerns, and the form of his philosophical approach bound in tightly together, and through the development of this conception we can trace the link between the shape of Frege's investigation and how this influenced his overall approach to the philosophy of language.

Frege's ideal of determinacy, and his vision of sense, is not the 'deepest' element in his logicism. Of course, his conception of logic holds pride of place here. Wittgenstein captures this vision beautifully in the next aphorism (89):

These considerations bring us up to the problem: In what sense is logic something sublime?

For there seemed to pertain to logic a peculiar depth -a universal significance. Logic lay, it seemed, at the bottom of all the sciences.-- For logical investigation explores the nature of all things. It seeks to see to the bottom of things and is not meant to concern itself whether what actually happens is this or that.--It [logic] takes its rise, not from an interest-- in the facts of nature, nor from a need to grasp causal connexions: but from an urge to understand the basis, or essence, of everything empirical...

Once in the grip of such a vision, and such a theory it is hard to free ourselves because it seems to be *necessarily* so – where this necessary has all the force of logic behind it:

107. We see that what we call "sentence" and "language" has not the formal unity that I imagined, but is the family of structures more or less related to one another. –But what becomes of logic now? Its rigour seems to be giving way here. –But in that case doesn't logic altogether disappear? – For how can it lose its rigour? Of course not by our bargaining any of its

rigour out of it. –The *preconceived idea* of crystalline purity can only be removed by turning our whole investigation around.

The idea of such a “formal unity” (the unified underlying structural form of thought and language that is logic) is the ultimate product of the inter-relation of all the theoretical elements which Frege bound together in his account of meaning, and in which the post-theoretical conception of “determinacy of sense” is inextricably tangled. The final sentence of this aphorism shows how we can be scared away from attacking such a tightly harmonised theory. The very conception of logical rigour, the ideal end-point which we become transfixed by through our reflections, seems inextricable from Frege’s harmonised wider vision of thought and language. And so it should, because this conception of logic is *built into* these and cannot survive without them. It is a characteristic feature of this process of theoretical development that we end up with a conception under which it seems that all the elements of our account must all stand or fall together. They have evolved harmoniously, so each supports and is supported by, all the others.

The precarious status of such a theory can be seen in the prospect of total collapse resulting from taking away any one element of the theory; here a collapse which seems to undermine the very possibility for meaning itself by undoing the transcendental deduction which led to our conception of its nature. It seems that along with the ideal of logic goes the very possibility of rational communication, for this ideal shaped his conception of the essence of a large part of language, and seemed to support the very possibility of its existence. If we try to attack any particular element of this harmonised ideal vision, the others all threaten to fall along with it. The inter-relation and interdependency of all the aspects of Frege’s vision of language: the notion of analysis; the structural form of the proposition; the conception of what it is for an expression to make sense; and even scientific practice and rational discourse (on Frege’s strict model of these) hang together as a result of the evolution of the theory. Such theoretical constructions were, I argue, the target Wittgenstein had in mind when he notes “What [I

am] destroying is nothing but Castles in the Sky...”⁵³ These thoughts of regress and collapse frighten us as philosophers, hanging in the background as a warning or reproach against pushing too hard against the theoretical machinery of a complex vision such as Frege’s. Our reluctance to take issue with the form of the account is reinforced by the positive achievements of the theory (its making certain problems disappear). In this way we are lead us to avoid the kind of massive overhaul in our thinking which we must undergo in order to think freely and clearly about a subject again.

It seems clear to me that Wittgenstein had at least Frege’s conception of language in mind when writing these sections of the *Investigations*, and I hope to have given the reader enough evidence to see that Frege’s conception of determinacy of sense is developed along the lines that Wittgenstein’s indicates here, and that it falls into the traps of metaphysics and dogmatism that Wittgenstein warns against. The vision of a language ideal for the communication of rational thought that Frege produced was the result of a process of ‘crystallisation’, what I have called ‘harmonious evolution’, that I have tried to trace through the body of this essay. His error lies in taking certain real, and important aspects of language (a particular structural form, logical aspects of its composition and so forth) to reveal the *nature* of (rational) language itself. This is a mistake which lies in the spirit of Frege’s reflections, the shape of his project, and not in any one particular place in his theory. Of course, this is not to say that Frege’s account has nothing to it, or that it is *wrong* through-and-through, but rather that it is limited, and offers a partial and skewed picture of language. Re-assessing the theory will require rethinking Frege’s attitude towards the logical features of language as ‘essential’ or ‘fundamental’, and thereby challenging his partitioning-off of ‘rational’ thought and language from the psychological and non-rational. Perhaps, in so doing we will have to challenge Frege’s logically conditioned picture of rationality itself, and the notions of objectivity, analysis and so forth which go with this. It is only by means of such a major overhaul of the Fregean conception of thought and language that we will be able to assess just what Frege’s logicism can show us about language and the thoughts we express by it.

⁵³ *PI* §118 – Peter Lewis suggested this translation of “Luftgebäude”

Bibliography

Primary Texts and Title abbreviations

G. Frege

- (CP) *Translations from the Philosophical Writings of Gottlob Frege*, (Trans. and Ed. P. Geach and M. Black) **Blackwell** 1952.
- (TT) *The Thought – A Logical Enquiry* in **Mind** July 1956
- (FA) *Foundations of Arithmetic* (2nd Rev. Ed.) **Northwestern University Press** 1980
- (PW) *Posthumous Writings* (White & Long Trans.) **Basil Blackwell** 1997

L. Wittgenstein

- (TLP) *Tractatus Logico-philosophicus* **Routledge** 2001.
- (PI) *Philosophical Investigations* (Trans. E. Anscombe, Revised Ed.) **Blackwell** 2001
- (NB) *Notebooks* **Blackwell** 1981
- (LPP) *Wittgenstein's Lectures on Philosophical Psychology 1967-47*, (Ed. P. T. Geach) **Harvester Wheatsheaf**. 1988

Secondary Texts

- G. Anscombe *An Introduction to Wittgenstein's Tractatus* **University of Philadelphia Press** 1959
- G. Baker *Wittgenstein's Method: Neglected Aspects* (Ed. K.J. Morris) **Blackwell** 2004
- T. Burge *Frege on Sense and Linguistic Meaning* in, "The Analytic Tradition" (Eds. D. Bell and N. Cooper) **Blackwell** 1991
- J. Conant, C. Diamond
On Reading the Tractatus Resolutely in "The Lasting Significance of Wittgenstein's Philosophy" (Eds. M. Kölbel B. Weiss) **Routledge** 2004.
- C. Diamond *The Realistic Spirit* **Cambridge, MIT Press** 1979

M. Dummett *Frege : philosophy of language* (2nd Edition) **Duckworth** 1981

M. Kremer Sense and Meaning: The Origins and Development of the Distinction
To appear in (unpublished) "The Cambridge Companion to Frege",
(Ed. T. Ricketts)

J. Weiner *Frege in perspective* **Ithaca: Cornell University Press** 1991.

Addenda

Addendum 1: Ideas in Frege.

Frege held a conception of ideas as something like mental images that we form in our heads. They are private, and subjective in the same way that the retinal images of the various viewers using the telescope are. These images are derived from objects out there in the world, and are yet *essentially* internal, private and hidden to all but the subject of the image herself. Similarly, we can each only experience our own visual impressions and never have those of another, barring fantastical eye (visual cortex, brain...) transplant cases. This picture of retinal images (impressions) and ideas is strikingly close to the sense-data picture of unique private mental objects that would come to be popular in theories of perception in the period following Frege's work, and, just as with sense-data, images and ideas are necessarily subjective / private by nature. To take the example of looking at the moon: even if we allow that the moon does not shift in position noticeably, light conditions remain the same, and so forth, there are differences between us *as viewers* (our eyes' relative acuities, blind spots, colour sensitivity etc.) which, Frege wants to say, are irreducibly personal. These leads to differences in the perceptual experiences had by each of us, and the idea of the moon that each of us will form. It is in contrast to these subjective differences that sense is defined.

Addendum 2: Definitions and Elucidation in Frege

Frege limits what can be expressed by means of language (even the *Begriffsschrift*) in a way which renders certain important elements of his system *necessarily inexpressible* and *indefinable*. These are the fundamental formal properties of thoughts, and the structural / logical relations between conceptual contents which underlie his logistic picture and cannot be captured within thought or language. One place where the matter of the inexpressibility of the form of conceptual contents comes to a head is in the status of expressions containing 'the True', 'concept', 'object', and

‘subjective’. The clearest exposition of the problem here can be found in Frege’s celebrated reply to Kerry’s “the concept horse” objection, in *On Concept and Object*.

Commentators such as James Conant, Michael Kremer, and Joan Weiner (where they discuss the elucidation of basic elements of the *Begriffsschrift* and nonsensicality in Frege) seem to agree that Frege took it that these terms can only be employed in everyday language at the expense of incurring nonsensicality – which leads to a paradox of their elucidation. Importantly, they will have no representation in a proper symbolism but will be shown by their role in it. These words are taken by Frege to be or primitive terms in his logicism and they concern fundamental aspects of the logic behind language. At the same time, as a result of their fundamentality they are indefinable, and only expressible at the cost of involving oneself in a paradox. Hence Frege’s request that his readers “grant him a grain of salt”, and his admission that his expository expressions necessarily “miss” the thoughts that lie behind them. I defer to the work that has already been done on this topic, because this is a big issue, and because it does not relate directly to the central concern of this paper (the evolution of Frege’s logicism). It is, however, interesting to note that the lack of independent, free-standing definitions of important terms is another facet of the problems with elucidation created by imposing limits on what we can express with language, and it also suggests that the inter-defined nature of central concepts in Frege is not merely a coincidental result of his investigation, but is the direct result of the logicistic account itself.