

Theory and Elucidation: The End of the Age of Innocence

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One of the mysterious and puzzling claims in Wittgenstein's *Tractatus* appears in the penultimate entry, where he writes, "My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them--as steps--to climb up beyond them."¹ It is, at least, eccentric to characterize one's propositions as nonsensical, and some readers of the *Tractatus* have been inclined not to take this statement seriously. My aim here will be to examine one strategy for taking it seriously--a strategy derived from a particular reading of Frege's writings.

What burdens are imposed upon an attempt to take this statement seriously? The obvious worry is that, if we take this claim seriously, it is difficult to see what value the *Tractatus* can have. We do not, after all, transcribe and publish the babblings of infants. It is tempting to address this worry by providing an account of how Wittgenstein's propositions really do (imperfectly) communicate truths. This is the strategy Cora Diamond has labeled "chickening out,"² and I think her objections to chickening out are convincing. But if the nonsense of the *Tractatus* is not an attempt to show us an inexpressible truth, how can it have value?

It is important to begin by noting that nonsense need not be valueless. One might entertain a young child with a series of nonsense rhymes. And there are many songs, both amusing and serious, with nonsense lyrics. Nor is the use of nonsense syllables limited to entertainment. Singers typically warm up by use of vocalises--repeated patterns of notes sung on various nonsense syllables. Someone who can read, but not speak, a foreign language may find it helpful to learn the sounds of the language by learning to recite a series of nonsense syllables before trying meaningful sentences. It is obvious that nonsense can have value. Hence Wittgenstein's claim that his propositions are nonsensical does not, by itself, undermine the value of the work. But it is not obvious that this helps us see the value of the sort of nonsense that allegedly appears in the *Tractatus*. The problem is that it is not clear what role, other than stating truths, the sentences of the *Tractatus* are meant to play. The *Tractatus* appears to be a nonfiction

book of prose. Were it not for Wittgenstein's odd claims about nonsense, one would, without hesitation, try to read and understand the sentences of the *Tractatus* as if they were meant as statements of truths. But, while Wittgenstein tells us that they are nonsense, he does not appear to tell us how this nonsense is supposed to be of use to us. My burden will be to give an account of what use such nonsense might have.

Although the most striking feature of 6.54 is that Wittgenstein tells us that, when we understand him, we will recognize his propositions as nonsensical, in fact he does not merely tell us that his propositions should be recognized as nonsensical. The sentence begins, "My propositions serve as elucidations in the following way." His claim that anyone who understands him will recognize his propositions as nonsensical is part of his explanation of the way in which they serve as elucidations. On its own, this may not seem to be a particularly helpful observation. What, after all, is elucidation? And how can nonsense be elucidatory? One might expect to find the answers to these questions—if they exist—among the other remarks in the *Tractatus*. But the reader who looks for answers in the *Tractatus* will be disappointed. Unlike Frege, in whose work the notion of elucidation also plays a role,³ Wittgenstein says very little about elucidation. Nonetheless, I think that the notion of elucidation can be used to shed light on Wittgenstein's comments about nonsense. My strategy will be to use Frege's discussions of elucidation as commentary on Wittgenstein's remarks.

This may seem to be a peculiar interpretive strategy, and it deserves some comment. I do not mean to suggest that the appearance of the term elucidation (*Erläuterung*) in both the writings of Frege and Wittgenstein is sufficient to show that the term has the same significance for both writers. While there is no question that Frege had an influence on Wittgenstein's writings, Wittgenstein's remarks about elucidation and nonsense are not typically viewed as exhibiting that influence. Still, it is interesting that each of the remarks about elucidation in the *Tractatus* appears almost verbatim in Frege's writings. Wittgenstein wrote that he could establish the influence of Frege on the style of his sentences "where at first sight no one would see it."⁴ My interpretive strategy is motivated by the suspicion that Wittgenstein's talk about his propositions being nonsensical occurs in one of those places.

Let us begin by looking at the other remarks about elucidation that appear in the *Tractatus*. They are:

The meanings of primitive signs can be explained by means of elucidations [*Erläuterungen*]. Elucidations are propositions that contain the primitive signs. So they can only be understood if the meanings of those signs are already known (3.263).

and

Philosophy aims at the logical clarification of thoughts.

Philosophy is not a body of doctrine but an activity.

A philosophical work consists essentially of elucidations [*Erläuterungen*].

Philosophy does not result in "philosophical propositions" but rather in the clarification of propositions.

Without philosophy thoughts are, as it were, cloudy and indistinct: its task is to make them clear and to give them sharp boundaries (4.112).

It is not immediately obvious that the mention of elucidation has the same significance in these two entries. After all, the clarification of thoughts and the explanation of the meaning of a primitive sign do not exactly seem to be the same sort of activity. But it is not difficult to imagine cases in which these activities coincide. If our standards of clarity are at all restrictive, then many of the expressions in everyday use will have unclear meaning. Thus, it will be common for someone to attempt to express a thought by using a sentence containing a sign whose meaning is unclear. And in such a situation the clarification of the thought requires an explanation of the meaning of that sign. If the sign is not primitive, one might expect a definition. But if the sign is primitive, elucidation is required. Furthermore, if each proposition has a unique analysis (3.25), one might expect that clarity demands both complete analysis and elucidation of the primitive signs that appear in the completely analyzed proposition.

What are the primitive signs whose meanings are explained in the *Tractatus*? Most of the remarks about primitive signs in the *Tractatus* concern logical notation. Wittgenstein introduces one primitive sign for logic (6), a sign for the general form of a proposition. And he explicitly contrasts this sign with the signs Frege and Russell introduce as primitive signs in their logical notations. The interdefinability of

their logical signs, he says, shows that they are not primitive signs (5.42). One aim of the *Tractatus* is the explanation of the most general propositional form. Although Wittgenstein does not introduce a new logical notation, such an introduction might be seen as an important part of the logical clarification of thoughts. And even if it is not, a completely analyzed proposition, one that is expressed in such a way that elements of the propositional sign correspond to the objects of the thought (3.2), cannot be expressed using Frege's or Russell's logical notation. Thus, even if Wittgenstein does not mean to be introducing a logical notation, he certainly means to be issuing a critique of Frege-Russell logical notation.

We can now see a connection between Wittgenstein's avowed elucidations and the stated aims of the *Tractatus*. Wittgenstein says in the preface that his book shows that the reason why the problems of philosophy are posed is that the logic of our language is misunderstood.⁵ At one point (3.323-3.325), he says that philosophy is full of confusions that are produced by the use, in everyday language, of one word with different meanings. He goes on to say that, in order to avoid these errors, "we must make use of a sign-language that excludes them . . . that is to say, a sign-language that is governed by logical grammar--by logical syntax." This sort of language will be a logical notation. Wittgenstein's general objection to Frege's and Russell's logical notations is that they do not exclude all mistakes.⁶ Particular defects of these notations are described in several other entries of the *Tractatus*.⁷ The sign language that is governed by logical grammar will not be a cleaned up version of everyday language. It will be a correct version of the sort of logical notation introduced by Frege.

In the sense described earlier, the introduction of a correct logical notation will require elucidations. For, though Wittgenstein says that "all the propositions of our everyday language, just as they stand, are in perfect logical order" (5.5563), he also says that language disguises thought (4.002) and that Russell "performed the service of showing that the apparent logical form of a proposition need not be its real one" (4.0031). Indeed, since it seems that Wittgenstein's sign for the general form of a proposition will appear in each completely analyzed proposition, the explanation of this sign is, in some sense, a part of the clarification of all thought. The introduction of this sign draws a limit to the expression of thoughts.

There is, however, something odd about this focus on logical notation. Although Wittgenstein

does introduce some details of a logical notation in the *Tractatus*, explanations of symbolic expressions occupy only a small part of the book. And although he says a great deal about the propositions of everyday language, he does not proceed to clarify such propositions by translating them into a new notation. His comments about the ways in which Frege's and Russell's notations are defective also occupy only a small part of the book. It does not appear that the introduction of a correct logical notation is really a part of the project of the *Tractatus*. It is not difficult, however, to see that the critique of Frege-Russell logical notation, if compelling, will have serious repercussions for Frege's project.

One of Frege's central tasks is to provide explicit definitions, in his logical notation, of the number one and the concept of number. The formulation of these definitions, on Frege's view, will address a philosophical problem.⁸ Among the claims that would be expressible in his notation, should the project be carried out successfully, is the claim that one is a number. But Wittgenstein claims that the expression "1 is a number" is nonsensical (4.1272). His comments indicate that a correct notation will be designed to preclude the expression of such claims. Supposing Wittgenstein can convince us that such a logical notation correctly represents the logic of our language, then his prefatory remark about the problems of philosophy will have been at least partly substantiated. At least one philosophical problem, Frege's problem about the concept of number, results from a misunderstanding of the logic of our language. Here, then, is a pragmatic role for Wittgenstein's (elucidatory) discussion of logical notation: it can prevent us from squandering intellectual time and effort on what will amount to nonsense. But it is difficult to see how this can help with our initial problem—to explain the value of Wittgenstein's avowed nonsense. The discussion of logical notation may fit the description of elucidation, but it does not appear to be nonsensical. It is difficult to imagine that, were it recognizably nonsensical, there would be an identifiable (let alone convincing) critique of Frege. Moreover, if the objection to Frege's project is that it will result in Frege's writing nonsense, why is Wittgenstein's own work not open to this objection?

It is important to begin by noticing that, whatever Wittgenstein's critique might be, it can not be (just) that Frege is writing nonsense. Nothing in the *Tractatus* indicates that one should avoid writing nonsense song lyrics. Moreover, the fact that Wittgenstein is self-consciously writing nonsense in the

Tractatus suggests that the objection is not based on the assumption that one should not write nonsense in philosophy books. I will argue that the injunction is not to avoid writing nonsense but, rather, to avoid taking nonsense for theory. And I will argue that this injunction can be found in Frege's writings. But, in order for this position to make any sense, it will be necessary to see how there can be a legitimate role for nonsense to play in philosophy. To see this, it will help to look more closely at the nature of Wittgenstein's objection to Frege's use of the term "number."

Wittgenstein says that the word "number" signifies a formal concept (4.1272). We recognize that something falls under a formal concept by the sort of expression we use to make claims about it. He says,

When something falls under a formal concept as one of its objects, this cannot be expressed by means of a proposition. Instead it is shown by the very sign for this object. (A name shows that it signifies an object, a sign for a number that it signifies a number, etc.) (4.126).

At first glance there may look to be little common ground between this statement and Frege's writings.⁹ The expression "formal concept" is not one of the expressions that Wittgenstein borrowed from Frege's writings. And no expression in Frege's writings is used in this way. Yet there is reason to believe that the notion of formal concept, as described in the *Tractatus*, plays an important role in Frege's thought.

Although it is obvious that Frege did not take the expression 'number' to be a formal concept in the sense of the *Tractatus*, Frege's treatment of some of the other expressions that Wittgenstein identifies as signifying formal concepts is almost exactly the same as Wittgenstein's. One of these is the word 'object.'

Wittgenstein would surely say that the expression "1 is an object" is nonsensical. And Frege surely would not go that far. But it is easy to see Wittgenstein's talk about nonsense as a more dramatic way of stating something Frege does admit. Frege's actual comments about the expression "is an object" are both more ambiguous and more complex. Frege wants to say that the number one is an object. His introduction of the definition of the numbers begins with the heading "Every individual number is a self-subsistent object."¹⁰ And he concludes his response to Russell's paradox, in an appendix to *Basic Laws*, by identifying "the prime problem of arithmetic" as the attempt to answer the question "By what means are we justified in recognizing numbers as objects?"¹¹ However, there are important differences, on Frege's

view, between the claim that one is a number and the claim that one is an object. The most obvious difference is that, on Frege's view, "number" is definable and "object" is not. But there is a more significant difference than that.

In *The Foundations of Arithmetic*, the work in which Frege first writes that the numbers are self-subsistent objects, he does not support this claim with any demonstrations in his logical notation. Its support is supposed to appear later, in his *Basic Laws*, a work that does consist of proofs in his notation. But *Basic Laws* contains no theorem that numbers are objects. Indeed, there is not even a symbol for predicating objecthood in Frege's logical notation. Nor does Frege attempt to say in words, in the body of *Basic Laws*, that numbers are objects. How, then, does he take himself to have provided the means for justifying our recognizing numbers as objects? By his definitions. What makes the numbers objects, according to *Basic Laws*, is the sort of definitions the numerals must be given. Definitions for object-expressions are different from definitions for concept-expressions. And object-expressions play different roles in the expression of inferences from the roles played by concept-expressions. For example, suppose one has proved a first-order universal generalization from Frege's logical laws, something of the form: $(\forall x)\phi x$. Given that the numeral "1" has been introduced into his notation by an appropriate definition, one can prove $\phi(1)$. In contrast, given that a concept expression, say θ , has been introduced into his notation by an appropriate definition, one cannot prove $\phi(\theta)$. Indeed, given the rules of formation for Frege's notation, the expression that results from putting θ in the argument place will be ill-formed. There is no way to predicate ϕ of a concept named by " θ ". Although Frege does not say it quite this way, it is not inappropriate to read the universal generalization as saying, " ϕ holds of every object."

This is very similar to an explicit claim of the *Tractatus*. Wittgenstein says, "Wherever the word 'object' . . . is correctly used, it is expressed in conceptual notation by a variable name" (4.1272). A few lines later he gives an example. He says, "in the proposition 'There are 2 objects which . . .,' it is expressed by ' $(\exists x,y) . . .$ '" (4.1272). In Frege's notation too, the everyday word "objects" in the expression "There are two objects which . . ." will be replaced by two variable signs.¹²

In these respects the word "object," as Frege understands it, seems to signify a formal concept in Wittgenstein's sense. But Wittgenstein also claims that, when the word "object" is used as a proper concept-word, the result is nonsensical. By this criterion, the sentence "1 is an object" is nonsensical. Is there a sense in which Frege recognizes the expression "1 is an object" as nonsensical? Frege uses the predicate "object" throughout his writings. He also, notoriously, refuses to define it. A typical example is,

When we have thus admitted objects without restriction as arguments and values of functions, the question arises what it is that we are here calling an object. I regard a regular definition as impossible, since we have here something too simple to admit of logical analysis. It is only possible to indicate what it meant. Here I can only say briefly:
An object is anything that is not a function, so that an expression for it does not contain any empty place.¹³

One might suppose that, when Frege says we have here something too simple to admit of logical analysis, he is talking about something for which he is going to introduce a primitive term. This notion of primitiveness is mentioned in most of his discussions of systematizing science. In a systematic science, every definable term must be defined, and all inferences must be expressed as gapless proofs in his conceptual notation. Frege says that science only comes to fruition in a system. But he also acknowledges that not all terms are definable. He says,

My opinion is this: We must admit logically primitive elements that are undefinable. Even here there seems to be a need to make sure that we designate the same thing by the same sign (word). Once the investigators have come to an understanding about the primitive elements and their designations, agreement about what is logically composite is easily reached by means of definition. Since definitions are not possible for primitive elements, something else must enter in. I call it elucidation. It is this, therefore, that serves the purpose of mutual understanding among investigators, as well as of the communication of the science to others.¹⁴

Frege's point is that defining needs to stop somewhere. Elucidations are needed for the primitive undefinable terms that will be used in the definitions of the more complex terms of the science.

These general comments about primitive (or undefinable) terms do not quite apply to the term “object”. Frege says that the notion of objecthood is a logical notion. If there is to be a primitive term for objecthood in the language of systematic science, this language should be Frege's logical notation. But by the very nature of Frege's logical notation, there can be no term for objecthood. If a term that is to be defined is an object-name, this shows itself in the sort of definition that is given. The purpose of Frege's notation is to express all content that has significance for inference and to leave out all other content.¹⁵ A predicate for objecthood could have no use in simple predications. In order to predicate objecthood of something, one must have an object-name for it. Thus such a predication can express nothing of significance for inference or, indeed, for anything else. As Frege says,

It is not easy to imagine how language could have come to invent a word for a property which could not be of the slightest use for adding to the description of any object whatsoever (Frege 1884/1980, section 29).

Nor would a predicate for objecthood have any other use. Frege would agree that, as Wittgenstein says in 4.126, the content of the everyday expression "object" in such everyday sentences as those beginning "there are two objects which . . ." is exhausted in the logical notation by the use of appropriate variables.

On Frege's view there is no role for a term for objecthood to play in the expression of statements in a systematic science. I have suggested that the reason is that for Frege, as for Wittgenstein in the *Tractatus*, the everyday term "object"—like the terms "concept" and "function"—signifies a formal concept. Although these terms do not appear in any statement of a systematic science, Frege does make use of all these terms in his writings. They appear in the preliminary remarks for setting up his logical notation—his language for systematic science—where they are used to introduce and describe the rules governing the use of different sorts of letters and signs. There are different rules for object signs, first-level function signs, second-level function signs, etc.. Of course, the rules for the use of different sorts of letters and signs can be stated without any use of such terms as “object”, “function” and “concept”. It is certainly possible to think of Frege's notation and rules of inference as an empty game. But Frege's aim is to show that his notation has expressive power. It is supposed to be a tool for expressing what is of significance to inference in the statements of everyday natural language. Without Frege's remarks about

the notions of function and object, there is no way to understand how his notation achieves this aim. Without, for example, recognizing Frege's conditional stroke as a function-expression, one could not understand or use the conditional stroke.¹⁶ The role these everyday terms play in the introduction of Frege's logical notation--the role of explaining the meaning of primitive terms--is just the role that is to be played by elucidation, both in Frege's writings and in 3.263 of the *Tractatus*.

So the advantage of considering Frege's discussions of elucidation is not just that he says more than Wittgenstein says in the *Tractatus*. Because Frege not only needs elucidation to introduce his notation, but also intends to use this notation as a tool, it is easy to see the importance of his elucidation. It is also easy to see how this elucidation is supposed to work. Furthermore, on Frege's view, there is no requirement that elucidations be translatable into his logically perfect language. Indeed, some elucidations cannot be translated into his logically perfect language.¹⁷ This lends plausibility to the claim that the importance of elucidation does not depend on its expressing objective truths.

It is, however, a long way from these conclusions to finding a value for elucidatory nonsense. I have argued above that Frege's views about the expressions "object," "concept" and "function" accord with some of Wittgenstein's remarks about expressions that signify formal concepts. But I have not yet discussed the salient feature of these remarks, namely, that sentences containing such expressions are nonsensical. Thus far, I have argued only that sentences containing such expressions cannot appear in Frege's notation. It does not immediately follow that the sentences in which they appear are nonsensical.

Nevertheless, there is a connection between some of Frege's elucidations and a notion of nonsense very like that of *Unsinn* in the *Tractatus*. Frege says,

what is simple cannot be analysed and hence not defined. If, nevertheless, someone attempts a definition, the result is nonsense [*kommt Unsinn heraus*]. All definitions of function belong to this category.¹⁸

This passage may seem to suggest the contrary of what I have claimed. One might infer that, if attempts at defining the notion of function result in nonsense, then to avoid nonsense the notion should be explained by elucidation. The problem with this inference is that any attempt at elucidation that is designed to explain what it is to be a function will result in nonsense for exactly the same reason that any attempt at a

definition results in nonsense. For even an elucidation will be expressed by a sentence in which the term "function" appears and the term "function," along with the related terms "concept," and "object," is defective. Frege's explanation of the defect involved in the word "concept" applies equally to "function."

He says,

the word "concept" itself is, taken strictly, already defective, since the phrase "is a concept" requires a proper name as grammatical subject; and so, strictly speaking, it requires something contradictory, since no proper name can designate a concept; or perhaps better still, something nonsensical [*einen Unsinn*] (Frege 1983, p. 192 [pp. 177-178])

Although Frege is careful to issue such disclaimers, they do not prevent him from using these terms in a way that requires something nonsensical. For the primitive terms of his notation cannot be introduced without the use of these defective terms. Some of Frege's elucidations involve ineliminable nonsense.¹⁹

Thus for Frege, nonsensical elucidation must have at least some value because it is an ineliminable part of the introduction of a correct conceptual notation. Moreover, by considering Frege's introduction of his logical notation we can see how our attempts to understand apparently meaningful but in fact nonsensical sentences can be of pragmatic value.²⁰ Although this understanding of how nonsense might function can be applied to the *Tractatus* as well, our problem is still not solved. For the purpose of Frege's nonsense, as described so far, is to introduce his logical notation. Thus we seem to have unambiguous criteria for the success of this nonsense. Further, given the usefulness of Frege's logical notation, there is no difficulty in regarding his elucidatory nonsense as valuable. But this explanation of the value of nonsense is less easy to apply to the *Tractatus*. If elucidatory nonsense can have only pragmatic value, then one might well regard the nonsense of the *Tractatus* as a failure. Wittgenstein's nonsense does not play the role of introducing a logical notation, for Wittgenstein introduces no logical notation. Nor has Wittgenstein's nonsense succeeded in convincing people that there is a difficulty with Frege's and Russell's logical notations. The sort of logical notation Wittgenstein seems to be advocating has not found the acceptance or uses that Russell's has. And, while some people may have been convinced by the *Tractatus* to refrain, for example, from the attempt to define the concept of number, this can hardly

count as an unambiguous indication of the value of Wittgenstein's nonsense.

But is the value of Frege's nonsense exhausted by its use in introducing his logical notation? If it is, then the subsequent success of his work in logic may seem to rob his philosophical writings of import for us. Today, virtually all philosophy undergraduates are taught a version of the first-order part of Frege's logical notation. This is at least evidence that we think we understand Frege's primitive terms today and, if we are right, there looks to be no role left for his actual elucidations. After all, it is not very difficult to introduce a logical notation to undergraduates. It certainly does not require an understanding of the complex arguments involved in Frege's discussions of the notions of function, concept, and object. Has philosophical (or logical) progress made Frege's elucidations obsolete?

Let us suppose, for the moment, that Frege's elucidations are obsolete. What does this tell us about the value of nonsense in general? First, we have found a case--Frege's elucidations--of an indisputably valuable use of nonsense. Second, the value of this use of nonsense is pragmatic. And there is no reason to believe that it can have no other uses. Indeed, I have just provided an example of a different use for Frege's nonsensical elucidations. In this paper I have discussed Frege's use of the terms "function," "concept," and "object," not in order to introduce his notation, but to discuss the interpretation of the *Tractatus* and the nature of elucidation. Thus it is not at all clear that Frege's elucidations should be abandoned.

It is important not to ignore the consequences of this view. If the only value of Fregean nonsense is its successful employment in the communication of the meaning of his primitive logical terms, then it should be no better than any other successful method for communicating this. Should it turn out, for instance, that we could reach the same understanding by taking a pill or undergoing a minor surgical procedure, then the only advantage of Frege's elucidations over the pill or the surgery would be its lack of physical side effects. Or would it?

I have suggested that we suppose for the moment that Frege's elucidations are obsolete. But this assumption of obsolescence makes sense only if the typical introduction of logical notation to undergraduates suffices to communicate what Frege's elucidations communicate. This is not very plausible. The only reason it may seem plausible at this point is that I've emphasized the pragmatic

character of Frege's elucidations. Given this emphasis, it is difficult to see what--beyond the ability to translate everyday sentences into logical notation and produce proofs--can be expected of the logic student to whom the notation has been successfully introduced.

Can there be more, then, to the successful introduction of a notation than conveying the ability to use it? Most of my discussion of elucidation so far has concerned the use of Frege's writings to explicate remark 3.263 of the *Tractatus*, the remark in which elucidation is characterized as explanation of primitive signs. But this seems a far cry from Wittgenstein's suggestion, in 6.54, that the use of his propositions as elucidations is supposed to get us to see the world aright. Something is surely missing from my description so far. The objection in the *Tractatus* to Frege's logical notation is not, after all, that Wittgenstein cannot understand how to use its symbols. This attention to the uses to which philosophical nonsense can be put should not be allowed to obscure the significance of something more intimately connected with the idea of seeing the world aright.

Frege says that "when properly expressed, a thought leaves no room for different interpretations" (Frege 1906, p. 384 [p. 315]). He takes this to be true of the proper expression of the primitive laws of logic--their expression in his conceptual notation. But it may well be possible to teach someone to conduct proofs in Frege's notation while regarding it as an uninterpreted calculus. (It is certainly possible to teach undergraduates a similar notation in this way.) On Frege's view, there is a difference between someone who, operating mechanically in accord with Frege's laws and rules, writes down something that is a proof in his notation and someone who proves a theorem using Frege's notation. And this difference is located in their respective understandings of the basic laws and rules.

All this attention to undergraduate logic students, however, is misleading. It is not only one's ability to write out proofs in Frege's notation that may be unaffected by lack of this sort of understanding. Frege's repeated criticisms of mathematicians who, he says, do not understand what the numbers are suggest that this sort of lack of understanding is no impediment to carrying out mathematical research. The inclusion of Weierstrass, a truly great mathematician, among those who do not understand what the numbers are suggests that lack of understanding is not even an impediment to carrying out important mathematical research. Thus an important part of Frege's achievement is meant to be, not an alteration in

mathematical practice, but an alteration in our view of arithmetic, our way of regarding its subject matter. This is not to say that Frege does not intend to make any contribution to mathematics. Obviously, he does. My point is, rather, that the aim of Frege's discursive writings, *The Foundations of Arithmetic* in particular, is not exhausted by its role in Frege's mathematical contribution.

To see why there must be something beyond that contribution to mathematics, let us tell a fictional story about Weierstrass, who, according to Frege, did not understand what the numbers are. Suppose Frege's project is carried out successfully; the results (including Frege's discursive writings) are shown to Weierstrass, who reads them and claims he understands and agrees with them. At this point, presumably, Frege would say that Weierstrass does understand what the numbers are. But what, exactly, does this mean? This would surely involve, on Frege's view, Weierstrass's realizing that numbers are logical objects. But the claim that numbers are logical objects is no theorem. Nor is it storable in Frege's notation.

Would this understanding change Weierstrass's technical arsenal or Weierstrass's beliefs about which elementary claims of arithmetic are true? It might. But, except for his views about mathematical definitions, Frege does not insist on any changes in mathematical practice. Nor does he argue that any statements that, prior to his work, had been regarded as truths (falsehoods) of arithmetic are actually false (true). Thus there is no reason to attribute to Frege the view that such an alteration *must* affect Weierstrass's work. This use of elucidations to change the way we regard arithmetic is not unlike the use suggested by Wittgenstein's claim that the propositions of the *Tractatus*, if they serve as elucidations, will get us to see the world aright.

It should not be surprising that Frege's discursive writings seem designed to do more than introduce a notation, logical laws, and proofs. After all, these writings are lengthy and complicated. The generally accepted view is that they are meant to set out a philosophical theory. It is only Frege's assessment of some of the central statements in these writings as nonsense that requires us to look for another explanation of how Frege means us to understand these writings. And it is not really very plausible that such extensive heuristics should be necessary for the introduction of Frege's mathematical results. Thus, it seems that the value of much of Frege's corpus can only consist in its ability to effect some sort of

inexpressible difference of understanding that may have no discernible practical effect. The upshot, unfortunately, is that we have lost one of the advantages of looking at Frege's nonsense rather than the nonsense of the *Tractatus*. It seemed that the problem presented by Frege's nonsense would be easier to confront than that presented by Wittgenstein's nonsense. The reason was that Frege's nonsense seemed designed to accomplish a practical and easily discernible goal. But the practical goal cannot be the point of all of Frege's discursive writings.

I want to argue that the difference in our way of seeing arithmetic and language after reading Frege's writings or the *Tractatus*, is of import on its own. I say that I want to argue this. But I cannot really argue this. Or, at least, I cannot provide an argument with this conclusion that proceeds from generally accepted premises and general principles. Yet I have some resources. I do not--not yet--feel driven to stamp my foot.

Before I attempt to make use of these resources, however, it may be worthwhile to stop and answer a question. Why bother? As the above discussion seems to show, both Frege and Wittgenstein have made statements that conflict with some of their other statements. This is not especially surprising, since it is easy enough to take missteps in the attempt to work out a grand project. Moreover, surely it is sound interpretive strategy to discard the obvious missteps. It may seem that the claim that some of one's statements are nonsensical is such an evident misstep that it is a prime candidate for the discard pile.

But if it is so obvious to us that these statements are missteps, why was this not obvious to Frege and Wittgenstein? One might be tempted to say that, at least for Frege, this issue was peripheral and that he simply did not devote a great deal of thought to the difficulties with these statements. But the evidence suggests otherwise. The defective nature of the expression "concept" is a central subject of his paper "On Concept and Object." And the large number of such statements in his *Nachlass*,²¹ suggests that he devoted a considerable amount of thought to this issue. Insofar as we respect Frege's philosophical acumen, it seems only appropriate to devote some effort to providing an interpretation on which he can be taken at his word.²² With Wittgenstein, the situation is even clearer. For claims about nonsense occupy a central role in the *Tractatus*. Wittgenstein not only says that his propositions are nonsensical, he also says that most of the propositions and questions in philosophical works are nonsensical and even that such

everyday claims as "1 is a number" are nonsensical (4.003, 4.1272 and 6.54). Thus far, most attempts to make sense of Frege's and Wittgenstein's claims about the nonsensical nature of some of their propositions involve the strategy that Diamond calls "chickening out."²³ It is surely worthwhile to attempt to provide an interpretation on which Frege and Wittgenstein are right, both about the nonsensical nature of their propositions and about the value of their enterprises. Let us return, then, to the question of what importance elucidation can have.

The conclusion that there can be importance to a shift in our way of thinking about something--even if that shift is not used for any practical end--is one that I intend to defend by elucidation. But even if I have not yet been reduced to stamping my foot, it is important to emphasize that I will, like Frege, have to ask for goodwill, cooperative understanding, and a grain of salt. Many of us have been confronted by students hell-bent for medical school who deny the value of philosophy. Of course these denials typically appear in the context of an easily countered argument. For example, "You should give me a better grade because my difficulties in the study of this valueless subject should not keep me out of medical school, since, if I am kept out of medical school, I will be prevented from performing great services to humanity." But if this particular challenge is easily countered, that is partly because of the typical lack of strategic sophistication of its formulators. If the student gives up all grandiose ideas of the expected uniqueness and importance of her/his post-medical school accomplishments, if the student does not read (except to study), does not listen to music (except as background), does not go to the theater (except for distraction), in short, if the student truly does not value anything but what has recognizable practical value, then there is nothing left to be said. In such a circumstance, one might as well stamp one's foot.

My confidence that I am not now in that circumstance is what leads me to believe that I have more resources. But I do not mean to arouse worries that I am about to provide embarrassing autobiographical details or attempt to discuss the psychological proclivities of philosophers. The elucidation I will discuss is already in print and does not concern the psychology of philosophers. It is not private to me, nor is it even my own. Nor will this be an attempt to use graceful and elegant prose for the purpose of dazzling the reader into accepting something she really thinks is wrong.

Such a discussion, of course, may seem a departure from the elucidatory procedure described in

Frege's writings. His comments about investigators' reaching a mutual understanding on the meaning of primitive terms may be taken to suggest that elucidation is an improvised activity whose details are dictated by the idiosyncrasies of the investigators. But it is important to remember that Frege says that elucidation serves mutual understanding, not just of the investigators who introduce primitive terms initially, but also for "the communication of science to others" (Frege 1906, p. 301 [p. 300]). Frege himself gives elucidations in order to communicate the meanings of the primitive terms of his logical notation.²⁴ These elucidations, of course, are not improvised examples in a private conversation. They appear in Frege's written work. Elucidation, like explicit argument and proof, can be available in literature.

The elucidation I will discuss comes from Edith Wharton's novel, *The Age of Innocence*.²⁵ It will help to begin with a few comments about the plot. Newland Archer, the central character of *The Age of Innocence* is, when the action of the novel commences, a rather silly, unreflective person. The novel opens with a description of the events that take place among a group of people at a performance at the Metropolitan Opera of Gounod's *Faust*. Archer arrives late because it is "not the thing" to arrive on time for the opera and

what was or was not "the thing" played a part as important in Newland Archer's New York as the inscrutable totem terrors that had ruled the destinies of his forefathers thousands of years ago (Wharton 1962, p. 14).

Nor is Newland Archer an unwilling participant in this New York. We are also told that "Few things seemed to Newland Archer more awful than an offence against "taste," that far-off divinity of whom "form" was the mere visible representative and viceregent" (Wharton 1962, p. 22.). Edith Wharton introduces another character, Lawrence Lefferts, as the foremost authority on "form." She continues,

He had probably devoted more time than anyone else to the study of this intricate and fascinating question; but study alone could not account for his complete and easy competence. One had only to look at him, from the slant of his bald forehead and the curve of his beautiful fair moustache to the long patent-leather feet at the other end of his lean and elegant person, to feel that the knowledge of "form" must be congenital in

anyone who knew how to wear such good clothes so carelessly and carry such height with so much lounging grace. As a young admirer had once said of him, "If anybody can tell a fellow just when to wear a black tie with evening clothes and when not to, it's Larry Lefferts." And on the question of pumps versus patent-leather "oxfords" his authority had never been disputed (Wharton 1962, p. 17).

Edith Wharton tells us that Newland Archer felt himself superior to Lawrence Lefferts and his companions: "he had probably read more, thought more, and even seen a good deal more of the world than any other man of the number. Singly they betrayed their inferiority" (Wharton 1962, p. 17). But, she also tells us, together they represented "New York," and he accepted their doctrine on all the issues called moral (Wharton 1962, p. 17).

On the afternoon before this particular night at the opera, Newland has just become engaged to be married. That night at the opera, these men who represent New York are all talking about a woman sitting in the box belonging to the family of his future wife, May. Ellen Olenska is May's cousin. She has spent most of her life in Europe, married a count and is now returning to New York under somewhat scandalous circumstances. The announcement of his engagement is moved forward, at his urging, so that he can express support of May's family. This support is complicated by Ellen's odd views and behavior. She regards New York society as quaint and, at least initially, cannot see any reason for following its rules. In the course of the novel, Newland marries May but falls in love with Ellen.

As he begins to see New York society through Ellen's eyes, she begins to see it through his eyes. Even as he begins to see the hypocrisy and triviality of his world and, more significant, to recognize the strict limitations that membership in this society will place on his life, Ellen begins to see its virtues. Ellen's recognition of these virtues convinces her to give Newland up, and Newland's recognition of these virtues, not in his original unthinking way, but as a result of what he learns from Ellen, allow him ultimately to give her up.

Although the novel is almost entirely taken up with the story of this relationship, it does not end with the final separation of Ellen and Newland. At the end of the novel, Edith Wharton returns us to Newland Archer twenty-six years later, as he is contemplating the impending marriage of his now-grown

son and, in the process, looking back on the course of his own life. We are informed that the life he has led in the intervening years is very much the sort of life he expected to lead before meeting Ellen Olenska. He has lived his life without the "exquisite pleasures" to which Ellen alludes in one of their discussions. There has been one unorthodox feature of his life and that is that he once was elected to public office. This was the extent of his political career, however, for he was not reelected. His reverie is interrupted by a long-distance telephone call from his son, who convinces Newland to accompany him on a trip to Paris. The final pages of the novel take place in Paris, where Newland comes to terms with the fact that his choice to live a life bounded by the constraints of old New York has made him into a certain sort of person. He is "old-fashioned" and although, since his wife is dead, he is now in a position to experience the exquisite pleasures he once desired without paying for them by anything "hard and shabby and base," he no longer desires them. The Newland Archer who appears in these last pages is, unlike the Newland Archer of the opening pages, an immensely sympathetic character.

Why should this story tell us anything about elucidation? The answer has to do with our reasons for liking Newland at the end of the novel. For the difference has nothing to do with the actions he performs or the rules by which he lives. The life he has lived and the life, as is evident in the ending, he will continue to live, is not so different from Lawrence Lefferts's. But the esteem in which we hold Newland, but not Lawrence Lefferts, is not based on the fact that Newland's idleness is interrupted by his serving a term as an elected official or, in fact, on any of his actions. The most important difference has to do with the way Newland thinks about his actions and his decision to abide by the apparently arbitrary rules of the society in which he lives.

This is not to suggest that the novel shows that actions are unimportant--or that any act is permissible or admirable provided one has reached reflective equilibrium about it. There is no reason to infer that this sort of reflection is the only valuable activity or even that it is the most important sort. But Newland Archer becomes a sympathetic character in the course of the novel to the reader who intrinsically values a certain sort of reflection. And the story about this change in the reader's attitude is an example of how elucidatory justification works. But this may not show that *The Age of Innocence* provides justification. After all, not everyone will respond in the same way to the novel. And as for the

sophisticated pre-medical student, she will surely be unimpressed. It may seem, then, that the novel can provide justification only to someone who already agrees with the moral. But notice that this does not vitiate the use of the novel for Fregean elucidation. Frege says,

When a straight line intersects one of two parallel lines, does it always intersect the other? This question, strictly speaking, is one that each person can only answer for himself. I can only say: so long as I understand the words "straight line," "parallel" and "intersect" as I do, I cannot but accept the parallels axiom. If someone else does not accept it, I can only assume that he understands these words differently. Their sense is indissolubly bound up with the axioms of parallels (Frege 1983, p. 266 [p. 247]).

Frege believes that no one who understands the axioms of Euclidean geometry can doubt their truth, but it does not follow that we can understand them or see that they are true without elucidation. It is also interesting to note that Frege's confidence that we can reach an understanding and agreement about the axioms of geometry does not prevent him from believing that the question of the truth of the axiom is something that each person must answer privately. Frege says that if someone else does not accept the axiom he can only assume that this person understands the words differently. There is no guarantee of the success of elucidation.

There may seem to be something deceptive about this discussion of elucidatory justification. My aim was to say that there was value in the nonsense of Frege and Wittgenstein. But the text I used for purposes of elucidation was a novel. Its sentences are not nonsensical, or at least they are not nonsensical in the way Frege's claims about concepthood are. The point of the discussion of Edith Wharton's novel, however, was to recognize the value, not of her novel, but of the changes in Newland Archer's way of thinking about the world.

Of course at this point two shifts in view are under discussion. One of these is the fictional shift of Newland Archer. The other, presumably nonfictional, shift is that undergone by the reader of *The Age of Innocence*. Neither exactly fits Frege's description of the aim of elucidation, that is, serving "the purpose of mutual understanding among investigators, as well as of the communication of the science to others" (Frege 1906, p. 301 [p. 300]). Newland Archer's shift, in particular, is private. And neither shift

has anything to do with scientific investigation. However, as I have argued above, the difficulty with identifying the value of shifts accomplished by Fregean elucidation is that they need not have any practical effect on the methods or results of scientific research. If, as I have argued in the discussion of *The Age of Innocence*, the change in Newland Archer's way of thinking is something we value, there seems no reason to deny that we value similar shifts in our ways of thinking about the primitive concepts of some scientific discipline. Moreover, it is of interest to note that the other shift under discussion, that of the reader of *The Age of Innocence*, is something that serves the purpose of achieving mutual understanding, although not of scientific investigators.

But, even so, there may look to be deceit involved. After all, why can the changes in Newland Archer's way of thinking about the world not be characterized as a difference in his substantive beliefs? Surely there are some beliefs that we can attribute to him at the end, but not the beginning of the novel. It is not easy, however, to find a difference in beliefs that characterizes the change in his thought. It is not, for instance, that he comes to believe there are other ways of life. He recognized that before. Indeed, early on in the novel he prides himself on his friendship with an impoverished reporter as well as his wide experience of the world. Nor does he come to believe that there are other ways he could have lived. He is not really exposed to any other ways of life. He is only exposed to Ellen Olenska's attitude toward his. When he suggests that they run away together to some place where they will not be stigmatized for their behavior, she replies, "Oh my dear--where is that country? Have you ever been there?" (Wharton 1962, p. 231). Edith Wharton writes about the two of them, near the end of the novel, "More than half a lifetime divided them, and she had spent the long interval among people he did not know, in a society he but faintly guessed at, in conditions he would never wholly understand" (Wharton 1962, p. 284). Insofar as he has a vision of other lives or other options, it is only a fantasy. This is not to say that there are no changes in his beliefs. There surely are. But it does not seem that there are any changes in his beliefs that can be said to characterize the change in attitude that constitutes a central drama of the novel. It is not clear that what he has learned can be expressed in words. If this is right, then any attempt to characterize Newland's reflections in explicit words will, like Frege's characterizations of objecthood, result in nonsense.

One might respond that, since Newland Archer's changes are explained to us in a novel, the real

characterization of these changes is not what goes through his mind or what he says but, rather, what is said in the novel. Perhaps what is said in the novel is not what Newland Archer has learned, but one might take it as significant that we can be taught about what he has learned without the use of nonsense sentences. This would mark a difference between the elucidation in Edith Wharton's novel and that in the works of such philosophers as Frege and Wittgenstein. But what is the significance of this difference? It is not that novels, because they do not contain nonsense, cannot provide elucidation. Elucidation is, as Wittgenstein says of philosophy, an activity. And there is no reason to suppose that an activity that sometimes involves nonsense must, therefore, always involve nonsense. While vocalises typically make use of nonsense syllables, there is no requirement that only nonsense syllables be used in vocalises. Some singers practice arpeggios on sentences.

But if novels can accomplish our elucidatory aims without engaging in nonsense, should we banish nonsensical philosophical writings in favor of justification by novel? It seems obvious to me that the answer to this question is, No. It is difficult to imagine how, for instance, Frege's logical notation might be introduced by means of fiction. And even if one could come up with some such introduction-by-fiction, why would this be preferable to Frege's? Surely, laughter would be the appropriate reaction of a singer who is criticized for using nonsense syllables in vocalises on the grounds that she could use perfectly good sentences. If Frege's elucidatory nonsense is successful, why should we object that it is nonsense? The conviction that we should object to Frege but not to the singer is, I want to suggest, a symptom of a prevalent and enduring fantasy. This is a fantasy of the perfect transparency and communicability of thoughts.

This fantasy both antedates and survives Frege's and Wittgenstein's writings. And one can find quotations that support its attribution to both of them. For example, Frege uses the term "thought" for what can be true or false, what can be judged.²⁶ He also says that what is objective is what is law governed, conceivable, judgeable, what is expressible in words (Frege 1884/1980, section 26). Throughout his writings, it is suggested that all thoughts can be expressed in language. This is also suggested, although perhaps more ambiguously, in the *Tractatus*, where Wittgenstein says, "A thought is a proposition with sense," (4) and that we have "the ability to construct languages capable of expressing

every sense" (4.002). And it is suggested in a journal entry from 1916 where he says

Now it is becoming clear why I thought that thinking and language are the same. For thinking is a kind of language. For a thought too is, of course, a logical picture of the proposition, and therefore it just is a kind of proposition.²⁷

On this view, it seems, what can be thought can be expressed in language. And not only imperfectly-- what can be expressed in language can be expressed with precision. In Wittgenstein's words, "what can be said at all can be said clearly" (*Tractatus*, p. 3). In Frege's words, "when properly expressed, a thought leaves no room for different interpretations" (Frege 1906, p. 384 [p. 315]). If I want to communicate something and fail, this might be due to imperfections in the language I am using or to my imperfect use of that language. Or it might be that, due to unclear thinking, there really is nothing I am trying to communicate. In any case, this failure is the failure of an individual. There are no inexpressible thoughts.

Consider the paragraph I have just written. It is certainly not a work of art or an example of particularly felicitous expression. Its primary purpose is to communicate something. And, on this view, what can be communicated must be objective, it must be composed of thoughts. Thus the purpose of my paragraph must be to express thoughts (although this expression might be imperfect). Furthermore, unless there is something really wrong with the above paragraph--unless it amounts to unarticulated gibberish-- the thoughts it attempts to express will be expressible precisely.²⁸ If there is no way to express precisely what is communicated, then the description cannot be communicating anything. Since only thoughts can be communicated, attempts at communication that demonstrably fail to express thoughts will be valueless. Attempts at communication that imperfectly express thoughts should, if the thoughts are important, be reworked so that the thoughts are stated precisely.

Given these convictions, along with the belief that the above description of the relation between language and thought certainly expresses something, it does not seem unreasonable to attempt to explain this relation more precisely. The interpreters of Frege's writings have been even more unified than those of the *Tractatus* in their conviction that his writings provide methods for doing this. In particular, Frege is credited with introducing the means for developing semantic theories. And, in this way, he has been viewed as beginning the process that will allow philosophy to mature into a science. Philosophy, in

Frege's hands, has begun the transformation from a "soft" discipline into a "hard" one. Given this near unanimity among his interpreters, it seems rather surprising that his treatment of language and thoughts differs so radically from his treatment of logic and arithmetic. His writings are full of explicit discussions of what is required for science and his writings are full of arguments that his science of logic meets these requirements. Not only do Frege's discussions of language universally fail to meet these requirements, he never attempts to apply his standards in these discussions. One might suppose that he meant to leave this further work for his followers. But one can only suppose this by ignoring a significant part of his corpus.²⁹

I have argued that, on the view I labeled the fantasy of perfect transparency and communicability of thoughts, any attempt to communicate must be an attempt to communicate thoughts and any thought can be precisely communicated. This creates a serious problem for the contrual of some of Frege's and Wittgenstein's apparent expressions of thoughts. For the only purpose of these expressions is to communicate something and, as both writers explicitly state, there is no way to replace them with precise expressions. On this view, then, they seem to be without value. Furthermore, these valueless apparent expressions of thoughts are the sentences that appear to be central to the development of a semantic theory. Why have contemporary philosophers not found this more disturbing?

I suspect that one reason has to do with Frege's standards of rigor. Frege is notorious, and justly so, for championing standards of precision and rigor far in excess, not only of those of other writers of his time, but also of what is practical for everyday scientific or mathematical research. Although it is the adoption of these standards that seems to allow Frege's apparent transformation of philosophy into a science, few contemporary philosophers of language seem to have worried about the significance for that transformation of relaxing these standards. More significant, few contemporary philosophers have paid attention to Frege's views about the consequences of adopting his standards of rigor.

It is striking that this philosopher who required proof whenever proof was possible, and gapless proof at that, recognized that our understanding and justification of the primitive laws underlying all these proofs is, in an important sense, subjective and inexpressible. Rather than simply identifying a point at which we must stop defining and proving, Frege recognized a need to say something about that point--something that, of necessity, would not meet his standards. The upshot of taking all of Frege's writings

seriously is that, if one values precision and explicit expression, one must also recognize that there is something left over--that without something more our explicit sentences, in some sense, cannot really express truths. When properly expressed, a thought leaves no room for different interpretations--but only provided we have reached a common understanding of the primitive terms. That is, one must realize that the fantasy of the perfect communicability of thought is just that, a fantasy. It is difficult to determine, from Frege's writings, how clear this was to him. Some of my argument depends on drawing connections that Frege does draw but does not quite take with the seriousness we might expect from someone who sees the collapse of this fantasy. In contrast, Wittgenstein's statement that his propositions are nonsensical is what we would expect. And that, I suggest, is why he makes it.

At this point, it is of interest to consider an aspect of Frege's writings that I have been ignoring. This is his tendency to include a brief mention of poetry in many of his discussions of what is expressed by language. In fact, Frege does suggest that there is something other than thoughts--other than what is subject to laws or can be true or false--that is expressed by language. The difference between the use of the term "nag" or "steed" is one of his examples. What is expressed by poetry--just like elucidation--is imperfectly expressed and cannot be made precise. The upshot, although it is unlikely that Frege was entirely aware of this, is that in this sense his writings have the same status as poetry. But he may not have been entirely unaware of this upshot. He also says,

What are called the humanities are closer to poetry and are therefore less scientific than the exact sciences, . . . ; for exact science is directed toward truth and truth alone . . .

Where the main thing is to approach by way of intimation what cannot be conceptually grasped, these constituents are fully justified . . . What is called mood, atmosphere, illumination in a poem, what is portrayed by intonation and rhythm, does not belong to the thought.³⁰

It is easy to assume that, because he means to use his philosophical writings to introduce a systematic science of arithmetic, he did not really take them to be part of the humanities. But it is not obvious that this assumption is warranted. Frege is always aware of the difference between his discursive writing and the proofs in his logical notation.³¹ Instead of focusing only on Frege's contribution to

mathematics one might heed the remark, in the introduction to *The Foundations of Arithmetic*, that any thorough investigation of the concept of number is bound to turn out rather philosophical.

A final remark. I have argued that the result of viewing Frege's and Wittgenstein's writings as elucidatory nonsense need not deprive it of value. The value in elucidatory nonsense is that, like music and poetry, it can be used to express something that cannot be expressed explicitly; something that cannot be literally true or false. But, in suggesting that some philosophy can be viewed as a kind of art, I do not mean to be suggesting that there needs to be something artful about the nature of the writing. Indeed, philosophers, as a group, are known for the infelicity of their writing style. Rather, I would suggest that the art in philosophy has to do with the inventiveness and the rightness of alternative ways of viewing things. Just as a particular word or expression in a poem can be peculiarly, thrillingly right, so a particular philosophical argument can seem to illuminate some issue in a way that is also peculiarly, thrillingly right.

I do not mean all this to be taken as a celebration of nonsense over theory. Surely theory and statements of truths are preferable when available. But theory is not always available, and if what I have argued is correct, indeed, if Frege is correct, it is not available in a lot of the places many of us thought it was. Sometimes our actual choice is not between theory and elucidation but, rather, between recognizing elucidation for what it is and deluding ourselves into taking metaphor for theory. Perhaps it is time for the end of our age of innocence.

Footnotes

This is a version of a paper originally written for and presented at a 1991 conference titled “Elucidation, Understanding, and Truth” at Illinois State University and Illinois Wesleyan University. It underwent substantial revisions in the early 1990’s, which were completed in 1994. In preparation for this publication, I have made some minor revisions to the prose and added footnotes to more recent publications in which I have expanded upon some of the topics. However, I have decided not to update the discussions to reflect the substantial literature on this topic that has appeared since 1994. Thus some of the discussion, particularly from the first part of the paper, may seem somewhat dated to those who are familiar with the literature.

In revising the paper, I benefited from discussions with many of the participants in the original conference, as well as from helpful comments from Gary Ebbs, Jamie Tappenden and, especially, Mark Kaplan. My revisions were also influenced by discussions of nonsense in Cora Diamond, "Ethics, Imagination and the Method of Wittgenstein's *Tractatus*," in R. Heinrich and H. Vetter, eds., *Bilder der Philosophie, Wiener Reihe 5* (Vienna: R. Oldenbourg Verlag, 1991), pp. 55-90, hereafter (Diamond 1991), and James Conant, "The Search for Logically Alien Thought: Descartes, Kant, Frege and the *Tractatus*," *Philosophical Topics* 20 (1992): 115-180, hereafter (Conant 1992).

¹ Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. D. F. Pears and B. F. McGuinness (London: Routledge and Kegan Paul, 1961), 6.54. Propositions of the *Tractatus* will be cited by their number.

² Cora Diamond, "Throwing Away the Ladder," *Philosophy* 63 (1988): 5-27, hereafter (Diamond 1988).

³ For accounts of the role elucidation plays in Frege's project, see chapter six of my *Frege in Perspective* (Ithaca: Cornell University Press, 1990), hereafter (Weiner 1990), and my "Understanding Frege's Project," in ed. Thomas Ricketts, *The Cambridge Companion to Frege* (Cambridge: Cambridge University Press, forthcoming), hereafter (Weiner forthcoming).

⁴ Ludwig Wittgenstein, *Zettel*, eds. G. E. M. Anscombe and G. H. von Wright, trans. G. E. M. Anscombe (Berkeley and Los Angeles: University of California Press, 1970), §712.

⁵ *Tractatus*, p. 3.

⁶ For an interesting and more substantive discussion of the *Tractatus* criticism of Frege's and Russell's notations see Michael Kremer, "The Multiplicity of General Propositions," *Noûs* 26 (1992) 4: 409-426.

⁷ 4.1272, 4.1273, 4.431, 5.533 and 5.534

⁸ I have argued this in the first three chapters of (Weiner 1990). It should be noted that the fact that Frege viewed the formulations of these definitions as addressing a philosophical problem does not in any way preclude his regarding them as contributions to mathematics as well.

⁹ This connection between Frege's treatment of the expressions "relation," "concept" and "object" and Wittgenstein's notion of a formal concept has been drawn by Leonard Linsky in "The Unity of the Proposition," *Journal of the History of Philosophy* 30/2 (1992): 243-273. Linsky does not explicitly take the further step of connecting Frege's treatment of these expressions with Wittgenstein's remarks about nonsense.

¹⁰ Gottlob Frege, *Die Grundlagen der Arithmetik* (Breslau: Wilhelm Koebner, 1884), English translation by J. L. Austin, *The Foundations of Arithmetic*, 2nd rev. edn. (Evanston, Ill.: Northwestern University Press, 1980), hereafter (Frege 1884/1980), section 55.

¹¹ Frege, *Grundgesetze der Arithmetik* (Hildesheim: Georg Olms, 1962), hereafter (Frege 1962), p. 265.; English translation on p. 143 of *The Basic Laws of Arithmetic: Exposition of the System*, ed. and trans. Montgomery Furth (Berkeley and Los Angeles: University of California Press, 1964), hereafter (Frege 1964). (Frege 1964) contains a translation of *Grundgesetze* vol. 1, Introduction, §§0-52, Appendix I, and Appendix II. Translations of *Grundgesetze*, vol. 2, §§56-67, 86-137 139-44, 146-7 appear in *Translations from the Philosophical Writings of Gottlob Frege*, 3rd edn., eds. and trans. Peter Geach and Max Black (Totowa, New Jersey: Rowman and Littlefield, 1980), hereafter (Frege 1980).

From now on all English translation page numbers will appear in square brackets following German page numbers.

¹² Although in Frege's notation, unlike Wittgenstein's, to say that there are two objects also involves explicitly stating that these objects are distinct.

¹³ *Funktion und Begriff* (Jena: Herman Pohle, 1891), hereafter (Frege 1891a), p. 18; English translation on p. 147 of "On Function and Concept," in Frege, *Collected Papers: on Mathematics, Logic, and Philosophy*, ed. Brian McGuinness, trans. Max Black et. al. (Oxford: Blackwell, 1984), hereafter (Frege 1984), pp. 137-156.

¹⁴ Frege, "Über die Grundlagen der Geometrie," *Jahresberichte der Deutschen Mathematiker-Vereinigung* 15 (1906): 293-309, 377-403, 423-430, hereafter (Frege 1906), p. 301; English translation (Frege 1984), p. 300.

¹⁵ See the Preface to Frege, *Begriffsschrift, a Formula Language, Modeled upon that of Arithmetic, for Pure Thought*, in Jean van Heijenoort, ed., *Frege and Gödel: Two Fundamental Texts in Mathematical Logic* (Cambridge, Mass.: Harvard University Press, 1970), hereafter (Frege 1970), p. 6.

¹⁶ I have provided a detailed description of how Frege's elucidation of the meaning of the conditional stroke is supposed to work in (Weiner 1990), pp. 232-236.

¹⁷ Some, but not all. There is no reason to attribute to Frege either the view that all elucidatory hinting must be untranslatable into *Begriffsschrift* or the view that all elucidatory hinting must be nonsense.

¹⁸ Frege, *Nachgelassene Schriften* (Hamburg: Felix Meiner Verlag, 1983), hereafter (Frege 1983), p. 290; English translation in Frege, *Posthumous Writings*, eds. Hans Hermes, Friedrich Kambartel, Friedrich Kaulbach, trans. Peter Long and Roger White (Chicago: University of Chicago Press, 1979), hereafter (Frege 1979), p. 271.

¹⁹ It is important to emphasize that this is not to say that all sentences in Frege's discursive writings are nonsensical. The nonsense in these writings can usually be recognized by the use of such defective expressions as "function" and "concept." Other sentences in these writings have sense but cannot be directly translated into *Begriffsschrift* because their sense is not sufficiently precise. But this does not distinguish these sentences from most sentences used in scientific research. As I have argued in (Weiner 1990), even the sentences of pre-Fregean arithmetic do not have sufficiently precise sense. For a discussion of Fregean elucidation that is not nonsensical, see (Weiner forthcoming).

There is, however, a difference between the sentences of Frege's discursive writings and the sentences of pre-Fregean arithmetic. The sentences of pre-systematic arithmetic are meant to play a role in a mathematical theory. Thus they must be replaced by systematic sentences, all of whose terms have precise sense that determines a meaning. For this argument, see my (1990) pp. 111-119, 133-139. On the other hand, sentences of Frege's discursive writing, for the most part, are not meant to play a role in any systematic science. I do not have room to give an adequate defense of this claim here. In brief, the reason is that what appears to be the theory to which these sentences belong has, as its cornerstones, true

nonsense. This view is defended in my "Burge's Literal Interpretation," *Mind* 1995: 585-597, hereafter (Weiner 1995), and my "Has Frege a Philosophy of Language?" in ed. W.W. Tait, *Early Analytic Philosophy: Essays in honor of Leonard Linsky* (LaSalle, IL: Open Court 1997), pp. 249-273, hereafter (Weiner "'Frege and the Linguistic Turn,'" *Philosophical Topics* 25 (1997)). In particular, I argue in part II of my (1995) that some of the sentences which have been taken as expressing metaphysical truths about functions are, in principle, not expressible in *Begriffsschrift*.

²⁰ This is only so, of course, presuming that one agrees with Frege that his use of the expressions "concept" and "function" are nonsense. This view is not widely accepted and I do not have room to defend it here. For an argument that Frege's understanding of the defects of these expressions is correct, see (Weiner 1990) pp. 246-258.

²¹ Among the remarks, not including those from his early draft of "On Concept and Object" are (Frege 1983), pp. 129-133, 192, 210, 212, 257-258, 269, 275 (English translation (Frege 1979), pp. 119-122, 177, 193, 195, 239, 249-250, 255)). These span most of his subsequent career. The last are included in his "Notes for Ludwig Darmstaedter," dated 1919.

²² Another reason for taking Frege's claims about the nonsensical nature of his statements seriously is that it will not help simply to discard those claims. In this paper, I have argued that in Frege's logical notation there is no role to be played by a term for "object" and I have argued Frege's view of this term, along with "concept" and "function" is, in effect, that they signify formal concepts. But it is not just that there is no apparent role for these terms to play in Frege's *Begriffsschrift*. Nor is it that Frege's claims about objects, concepts and functions are vague or ambiguous or share any typical logical defects of statements of everyday language. Frege's claims about the nature of objects, concepts and functions are, in principle, not expressible in *Begriffsschrift*, as I argue in (Weiner 1995), Part II.

²³ Diamond, "Throwing Away the Ladder," *Philosophy* 63 (1988), pp. 5-27, (Diamond 1991), and Conant (1992) are notable exceptions.

²⁴ See, for instance, his introduction of the conditional-stroke in section 12 of (Frege 1964). I have discussed how this elucidation works in (1990), pp. 232-236.

²⁵ Edith Wharton, *The Age of Innocence* (New York: The New American Library, 1962; originally published in 1920), hereafter (Wharton 1962).

²⁶ Frege, "Der Gedanke," *Beiträge zur Philosophie des deutschen Idealismus* 1 (1918): 58-77, hereafter (Frege 1918), p. 62; English translation in (Frege 1984), pp. 355-356.

²⁷ Ludwig Wittgenstein, *Notebooks, 1914-1916*, eds. G. H. von Wright and G. E. M. Anscombe (Chicago: University of Chicago Press, 1979, hereafter (Wittgenstein 1979), entry of 12.9.16.

²⁸ This is actually a somewhat misleading characterization of Frege's views, although the difference has no significance for the point at issue here. On Frege's actual view, it may not be possible to identify a precise thought that I am attempting to communicate by means of my imperfect sentences. If my sentences are meant as a contribution to a science, then the systematization of this science will require me to substitute precise expressions for my imperfect expressions. The result will be sentences that express precise thoughts but that, of necessity, do not express exactly same sense as those with which I started. The new sentences, however, will need to preserve something of the senses of the old sentences. I have discussed this at more length in Chapter 3 of (Weiner 1990).

²⁹ For example, on Frege's view, every name of the True is a complex expression containing at least one function expression. Thus, were Frege interested in a theory of reference part of whose point is to give an account of how the truth value of a sentence is dependent on the referents of its parts, an account of how the referents of function expressions contribute to truth value would be a central part of his theory. But such an account would, on Frege's view, be nonsense. For more on this see (Weiner 1997).

³⁰ (Frege 1918, p. 63 [pp. 356-7]). Because I do not have room to give the full argument here, it may seem that the argument depends on our contemporary use of the English words "humanities" and "science." This is unfortunate, since these words have rather different meanings from the German words (*Geisteswissenschaft* and *Wissenschaft*) they are used to translate. However, the actual argument depends, not on these translations but, rather, on Frege's extensive discussions of what is required for an expression's admissibility for purposes of science. For this argument, see (Weiner 1997) and (Weiner 1990), pp. 95-120.

It should also be noted that it does not follow, from the fact that sentences that historians regard as expressing truths do not meet Frege's standards, that those sentences are nonsensical. After all, pre-Fregean arithmetic also fails to meet those standards. Rather, as I have argued, these sentences have imperfect (because insufficiently precise) sense (Weiner 1990, pp. 120-141). As I argued there, Frege's definitions of the numbers are meant to capture the sense that, by virtue of scientific practice, was previously associated with the numerals. This argument can be made, as well, about sentences that are taken to express truths about history. However, it may seem less plausible that the expressions used by historians can be given the sort of definitions Frege requires. Although this issue is too complicated to go into here, it is worth noting that the sentences from Frege's writings that he identifies as nonsense are very different from sentences purporting to express truths about history. It is the value of the former sentences that is at issue in this paper.

³¹ For example, Frege writes, in the Preface to *Basic Laws*, "The proofs themselves contain no words but are carried out entirely in my symbols" (1964, pp. 1-2). The exposition of his *Begriffsschrift* must, of necessity, be expressed in German, rather than in his notation. But the sections of Part 2 of *Basic Laws* are divided into those with the heading "Analysis" (*Zerlegung*) and those with the heading "Construction" (*Aufbau*). German words (expressions that are not part of his conceptual notation) appear only in the Analysis sections.