

## Logical Syntax in the *Tractatus*

Ian Proops

### Introduction

In the view of the *Tractatus* ‘The rules of logical syntax must go without saying if we only know how each individual sign signifies’ (*Tractatus* 3.334).<sup>1</sup> This thought is presented as a commentary on *Tractatus* 3.33<sup>2</sup>, which runs: ‘[logical syntax] must admit of being established without mention being thereby made of the *meaning* of a sign’. Taken together, the two remarks present a puzzle: because a language’s syntax is usually established by *stating* purely formal rules for the construction of well-formed sentences, it is difficult to see what it could be to ‘establish’ a logical syntax whose rules are supposed to ‘go without saying’. Nor is it immediately apparent whether the ‘logical syntax’ under discussion is supposed to be that of a natural language, or only of an artificially constructed *Begriffsschrift*. Wittgenstein contrasts ‘the language of everyday life’ with ‘a sign-language’ [*Zeichensprache*] that ‘obeys the rules of *logical* grammar – of logical syntax’ (3.323–3.325), but he also says that ‘all propositions of our colloquial [i.e. ordinary] language are actually, just as they are, *logically* completely in order’ (5.5563) (emphasis mine).

Despite these puzzles, I believe that a coherent and illuminating view of the nature of ‘logical syntax’ can be extracted from the *Tractatus*. In what follows I will try to throw light on this conception, and to resolve its puzzles, by explicating a closely related pre-

Tractarian thought. This is the idea, expressed in a letter to Russell of 1913, that a correct ‘theory of symbolism’ must render all theories of types ‘superfluous’.<sup>3</sup> Throughout this essay I shall be at pains to emphasize the importance in this connection of Wittgenstein’s novel account of the meaning-bearing elements of a sentence. The idea, in brief, is that these elements are not the sentence’s individual words, but rather certain *facts* about how these words are related to one another. In the sentence ‘Clinton is tall’, for example, what ascribes tallness to Clinton is not the expression ‘is tall’, but the *fact* that a token of ‘is tall’ occurs immediately to the right of a token of a name. This idea should be familiar to students of the *Tractatus*, but the systematic role it plays in his early philosophy has not, I think, been widely appreciated.

I shall argue that, in addition to shedding light on what it might be for logical syntax to ‘go without saying’, this idea is operative in motivating Wittgenstein’s version of Frege’s context principle, and the conception of nonsense that accompanies it. The idea also plays a role in Wittgenstein’s resolution of Russell’s paradox.

In the course of making these points I shall be developing a criticism of Cora Diamond’s influential account of Wittgenstein’s views on nonsense. I shall also be arguing for a point whose importance reaches beyond Wittgenstein scholarship. This concerns the problem of reconciling any form of the context principle with the creative aspect of language use – its so-called ‘compositionality’. I shall suggest that Wittgenstein’s views about what symbolizes in a sentence provide a strikingly elegant solution to this problem.

## **1 Nonsense and the Theory of Types**

I want to begin by considering Wittgenstein's oft-repeated slogan that 'Logic must take care of itself'. In the *Tractatus* this remark serves to introduce a discussion of better and worse ways of conceiving of nonsense.<sup>4</sup>

Logic must take care of itself.

A *possible* sign must also be able to signify. Everything which is possible in logic is also permitted. ('Socrates is identical' means nothing because there is no property which is called 'identical'. The proposition is nonsense because we have not made some arbitrary determination, not because the symbol is in itself impermissible.)<sup>5</sup>

In a certain sense we cannot make mistakes in logic.<sup>6</sup>

(5.473)

In approaching this passage we should keep in mind that in Wittgenstein's writings 'logic' has a broad range of meanings, stretching from 'a deductive calculus' at one end of the spectrum, to 'foundational *inquiry* into the nature of language and what *we* would call 'logic', at the other. The implication of 5.473 is that for logic to look after itself is for *language*, by its very nature, to render a certain kind of mistake impossible. That it is specifically *language* which is supposed to look after itself is supported by a variant of the 'caretaking' slogan that occurs in the *Notebooks*: 'We must,' says Wittgenstein 'recognize *how* language takes care of itself' (Wittgenstein 1979: 43). The perceived – or, rather, *imagined* – threat against which language is supposed to guard itself is the formation of what we might call 'intrinsically illegitimate symbols', that is to say, meaningless

combinations of meaningful signs. Wittgenstein's thought is that if – *per impossibile* – language *could* contain such signs, it would need to be 'taken care of' by a theory that furnished principled reasons for counting some combinations of meaningful signs as legitimate, others not. The burden of the above passage is that this is precisely the wrong way to conceive of language, and that once we form the right conception, we will come to see that no caretaking theory is, or could be, necessary after all.

What would a theory that attempted to 'take care of' language look like? A passage from the *Notebooks*, which seems to be the original source for 5.473, provides a clue:

Logic must take care of itself.

If syntactical rules for functions can be set up *at all*, then the whole theory of things, properties, etc., is superfluous. It is also all too obvious that this theory isn't what is in question either in the *Grundgesetze*, or in *Principia Mathematica*. Once more: logic must take care of itself. A *possible sign* must also be capable of signifying. Everything that is possible at all, is also legitimate. Let us remember the explanation why 'Socrates is Plato' is nonsense. That is, because *we* have not made an arbitrary specification, NOT because a sign is, shall we say, illegitimate in itself!

(22nd August, 1914, Wittgenstein 1979: 2)

As the passage makes clear, one candidate for a 'caretaking theory' is Russell's Theory of Types; another is the theory of objects, functions and concepts, outlined in the opening sections of Frege's *Grundgesetze*. When Wittgenstein says that the theory of things,

properties, and so forth ‘isn’t what is in question in *Grundgesetze* or *Principia*’ he does not mean to be denying that these works *contain* such a theory, but only that their chief concern is with this theory’s articulation and defence. (Wittgenstein takes it as obvious that the main business of these works is to establish one or other variety of logicism.)

Russell’s ‘types’ are various categories of worldly, rather than linguistic, entity;<sup>7</sup> and accordingly the Theory of Types is a theory that first assigns these entities to types, and then tells us which combinations of these types do, and which do not, constitute propositions. Because for Russell ‘significant’ sentences are just those combinations of signs that express propositions, the Theory of Types motivates a theory that tells us which strings of signs make sense, and which do not. This second theory may also be called a ‘Theory of Types’, but only in a looser sense.

When Wittgenstein says that a nonsense ‘sentence’ is not nonsense because a complex sign is ‘illegitimate in itself’ it is not at first clear what he means to be denying. Obviously, few people would consider a *purely syntactic* item to be illegitimate in itself – at most they might regard it as ‘ill-formed’ according to the formation rules of some language, and so illegitimate relative to the language in question. Therefore if Wittgenstein is to be read charitably here, he must be interpreted as denying the existence of complex signs that are illegitimate in virtue of the *meanings* of their component signs. I shall operate on this assumption in what follows.

What does Wittgenstein mean by his talk of setting up ‘syntactical rules for functions’? It is clear that he cannot be envisaging the kind of purely syntactic ‘formation rules’ that are

used to specify the formulas of a formal language; for, while such rules would indeed make no appeal to a Theory of Types – in the narrow sense of a theory of entity combination – neither would they render this theory ‘superfluous’, since a Theory of Types would still be required to *motivate* them.<sup>8</sup>

A better answer is suggested by Wittgenstein’s letter to Russell of January 1913:

...[E]very theory of types must be rendered superfluous by a proper theory of symbolism: For instance if I analyse the proposition Socrates is mortal into Socrates, mortality and  $(\exists x, y) \in_1 (x, y)$  I want a theory of types to tell me that ‘mortality is Socrates’ is nonsensical, because if I treat ‘mortality’ as a proper name (as I did) there is nothing to prevent me [from making] the substitution the wrong way round. *But* if I analyse (as I do now) into Socrates and  $(\exists x) . x$  is mortal or generally into  $x$  and  $(\exists x) \phi x$  it becomes impossible to substitute the wrong way round because the two symbols are now of a different *kind* themselves. What I am *most* certain of is not however the correctness of my present way of analysis, but of the fact that all theory of types must be done away with by a theory of symbolism showing that what seem to be *different kinds of things* are symbolized by different kinds of symbols which *cannot* possibly be substituted in one another’s places.

(Wittgenstein 1979: 121f.)

Every Theory of Types, then, is to be rendered superfluous by a ‘proper theory of symbolism’, and by this Wittgenstein does not mean a theory of the combinatory

possibilities of meaningful words, but a theory of *how* the various signs of the language symbolize. In the present example, the theory says that the items symbolizing in the string: ‘Socrates is mortal’ are *not* two proper names, ‘Socrates’ and ‘mortal’, together with the copula, ‘is’, but rather certain items that (somehow) by their very nature can be combined in only *one* way.<sup>9</sup> At this early stage Wittgenstein has yet to get clear about the details of this insight, but, as we shall see, he does get clearer about them.

Wittgenstein’s idea is that if we correctly identify the meaning-bearing elements of a language, the apparent possibility of a meaningless combination of meaningful signs will reveal itself to be *merely* apparent. A proper theory of symbolism will render any Theory of Types ‘superfluous’, by making clear that there is no such thing as a nonsensical combination of meaningful signs. In consequence, there will be no need for a theory to explain the nonsensicality of such combinations, and ‘logic’ – which in this context means ‘meaningful language’ – will ‘take care of itself’. These thoughts are still rather preliminary, but if they are on the right track, we might expect that what Wittgenstein means by ‘syntactical rules for functions’ are the various clauses of a theory of symbolism – a theory that makes clear which facts about signs have significance in the language.

## **2 Wittgenstein’s ‘theory of symbolism’**

Wittgenstein nowhere gives a full-dress presentation of his envisaged ‘theory of symbolism’, but he does indicate how particular clauses might go. In the *Notes on Logic*, for example, he observes that:

Symbols are not what they seem to be. In ‘ $aRb$ ’, ‘R’ looks like a substantive, but is not one. What symbolizes in ‘ $aRb$ ’ is that ‘R’ occurs between ‘ $a$ ’ and ‘ $b$ ’.

(Wittgenstein 1979: 98)<sup>10</sup>

And in the 1914 *Moore Notes*<sup>11</sup> he remarks that ‘the symbol of a property e.g.,  $\psi x$ , is *that*  $\psi$  stands to the left of a name form’ (Wittgenstein, 1979: 116).<sup>12</sup>

We can be confident that these remarks are serious statements of Wittgenstein’s view at the time he began to write the *Tractatus*, for in a letter of the 22nd July 1915 he tells Russell that he regards the *Moore Notes* ‘essentially as definitive’.<sup>13</sup> He adds that in the event of his death Russell is to get ‘his manuscript printed whether anyone understands it or not’ (ibid.). This manuscript is most likely the one Wittgenstein sent to Russell from Norway in October 1913, containing what were to become the four ‘manuscript’ sections of the *Notes on Logic*.<sup>14</sup> Also, in the *Tractatus* Wittgenstein continues to maintain that what symbolizes in the sentence are certain *facts* about its constituent signs: indeed, he holds that *only* facts can express a sense. (cf. 3.142–3.1432).

Wittgenstein puts his fledgling ‘theory of symbolism’ to work to argue for a particular conception of nonsense. In the *Moore Notes* he says:

The reason why, e.g., it seems as if ‘Plato Socrates’ might have a meaning, while ‘Abracadabra Socrates’ will never be suspected to have one, is because we know that ‘Plato’ has one, and do not observe that in order that the whole phrase should

have one, what is necessary is *not* that ‘Plato’ should have one, but that the fact *that ‘Plato’ is to the left of a name* should.

(Wittgenstein 1979: 116)<sup>15</sup>

The passage makes clear the place at which the theory of symbolism is supposed to do its work. Wittgenstein has an explanation of nonsense that works well for ‘Abracadabra Socrates’: a meaningless sentence contains signs to which we have given no meaning in the language (cf. *Moore Notes*, Wittgenstein 1979: 118, and 5.4733). But this explanation *appears* to fail for the nonsense string ‘Plato Socrates’, for in this case we do seem to have given meaning in the language to each of the component signs. From Wittgenstein’s point of view, however, this apparent problem arises only because we begin with the wrong view of what bears meaning in a sentence. Once we grasp that it is certain facts about signs rather than the signs themselves that have meaning in a sentence we come to appreciate that the string ‘Plato Socrates’ is indeed meaningless precisely because something in it has not been given meaning, only this ‘something’ is not the sign ‘Plato’ but the *fact* that a token of ‘Plato’ occurs to the left of a token of a name.

A precisely parallel point applies to the nonsense-string ‘is red is green’. In this case, it may appear that we have attempted unsuccessfully to put one meaningful predicate in the argument-place of another, but the theory of symbolism reveals this appearance to be misleading. What symbolizes in ‘predicative’ occurrences of the English expression ‘is green’ is the fact that a token of the sign ‘is green’ stands to the right of a token of a name. (Note that the classification of a sign as a ‘name’ must be understood to rely on phonetic, morphological and syntactic – but *not* semantic – criteria.<sup>16</sup>) Because speakers of English

attach significance to this fact, ‘is green’ has what we call ‘predicative meaning’ in the language. (This does not, of course, preclude its having other meanings as well.) The result is that instead of containing two meaningful predicates inappropriately combined, the string ‘is red is green’ contains *no* predicative symbolizing elements whatsoever: it exemplifies no fact that a token of ‘is green’ occurs to the right of a token of a ‘name’, since obviously, ‘is red’ is not an English name. The reason why ‘We cannot make mistakes in logic’ (5.473),<sup>17</sup> then, is that the meaning-bearing elements of a proposition turn out to be such that there is simply no such thing as putting them together in illegitimate ways. As soon as one grasps *how* words in natural languages mean what they do mean – i.e. in virtue of certain significant facts about them – the appearance that, for example, ‘is red is green’ is an illegitimate combination of meaningful words simply evaporates.

Since one way in which a word occurs ‘outside the context of a sentence’ is by occurring in a nonsense ‘sentence’, the theory of symbolism can be viewed as motivating a context principle to the effect that a word only has meaning in the context of a sentence (cf. 3.3). Once we accept the theory of symbolism just outlined, it becomes readily apparent why there should be no meaningful ‘words’<sup>18</sup> in a nonsense ‘sentence’: it is an immediate consequence of there being no significant *facts* in such a ‘sentence’.

### **3 Syntactically well-formed nonsense?**

A possibly controversial feature of my account – but one which I fully embrace – is that it commits Wittgenstein to denying the existence of syntactically well-formed nonsense.<sup>19</sup>

Consider, for example, the nonsense-string: ‘The slithy toves wept’. Let us suppose that its

phonology, and the presence of the recognized English words ‘the’ and ‘wept’, gives us reason to count this string as one whose grammaticality is to be decided by the rules of English syntax. Let us further suppose that the ‘nonsense words’ are genuine nonsense, rather than words with meanings unknown to the audience. On the reading I have been advancing Wittgenstein would have to count this string as nonsense by virtue of its containing *no* symbolizing elements, and so as among other things exemplifying no fact of the form that a token of ‘wept’ occurs to the right of a token of a plural noun phrase. He would therefore be obliged to deny that ‘the slithy toves’ is after all a plural noun phrase.

In defence of such a view one may call attention to the fact that since ‘slithy’ and ‘toves’ are genuinely nonsensical, they do not occur in the lexicon of English and so are not assigned to any syntactic category. It follows that the more comprehensive wholes in which they occur – including ‘the slithy toves’ – cannot themselves be assigned to a determinate syntactic category. But if that is so, then there can be no such thing as a nonsense *noun phrase* or, for that matter, a nonsense *sentence*.<sup>20</sup>

To suppose that the early Wittgenstein refused to recognize a category of grammatically well-formed nonsense would fit with his remark in the *Moore Notes* to the effect that:

The reason why ‘The property of not being green is not green’ is *nonsense*, is because we have only given meaning to the fact that ‘green’ stands to the right of *name*<sup>21</sup>; and ‘the property of not being green’ is obviously not *that*.

(Wittgenstein 1979: 116)

The sentence under discussion might well strike us as grammatically well-formed – it may seem to have subject-predicate form – but Wittgenstein implies that to view it in this way would be a mistake, for the apparent singular term ‘The property of not being green’ fails to count as a name. It so fails, I take it, because of its internal complexity, which indicates that the meaningful contexts in which it occurs stand in need of further analysis.

That Wittgenstein rejected grammatically well-formed nonsense would also square with what he has to say about Jabberwocky-style nonsense in his 1930 Cambridge Lectures. Speaking of the first line of Jabberwocky, Wittgenstein says: ‘This can be analysed into subject and predicate and parts of speech, but is nonsense. This shows that such analyses of the constituents of propositions are not correct.’<sup>22</sup> The remark seems to suggest that a string’s nonsensicality should be taken to indicate that any syntactic analysis that would deem it well-formed cannot be correct. This remark should of course be treated with all the caution appropriate to student jottings, but it does at least make salient the fact that the examples of nonsense given by Wittgenstein at 4.1272 are all cases in which it is questionable whether he would regard their *prima facie* syntactic analyses as correct. For example, his remark that the word ‘object’ is properly treated as a ‘variable name’ makes it seem likely that he would regard the nonsense ‘sentence’ ‘There are objects’ as only *apparently* grammatical, and in actual fact a mere sentence-fragment, viz. the initial part of some *meaningful* sentence, e. g. ‘There are objects that are green’ – a sentence that is perspicuously represented only by the explicit use of a variable: ‘ $\exists x$  (green  $x$ )’.

These considerations are not perhaps decisive proof that the early Wittgenstein rejected the idea of *syntactically* well-formed nonsense, but I would suggest that in the absence of clear

evidence to the contrary they ought to carry considerable suasive force in this direction. And it is a striking fact that both in the *Tractatus* and in his pre-*Tractatus* writings Wittgenstein fails to provide a single clear example of something he regards as a grammatically well-formed nonsense ‘sentence’. The impression that Wittgenstein believed in such a phenomenon arises, I believe, from a focus in the literature on a small selection of examples of putative well-formed nonsense which are either not Wittgenstein’s own (e.g. ‘Caesar is a prime number’), or are not nonsense by Wittgenstein’s lights (e.g. ‘the watch *is sitting* on the table’ – which Wittgenstein describes not as ‘unsinnig’ but as ‘sinnlos’<sup>23</sup>), or *are* nonsense, but are not syntactically well-formed by Wittgenstein’s lights (e.g. ‘The slithy toves did gyre and gimble in the wabe’).<sup>24</sup>

#### **4 The theory of symbolism and Russell’s paradox**

In the *Moore Notes* Wittgenstein employs his theory of symbolism to effect a resolution of the set-theoretic version of Russell’s paradox.<sup>25</sup> The resolution proceeds by demonstrating the nonsensicality of the paradox-inducing statement that a particular class contains itself as a member. It does not deal with this statement directly, but only with its analysed form.<sup>26</sup>

Consider a sentence of the language of *Principia* which purports to say of a given class that it contains itself as a member:

$$\hat{u} (\varphi u) \in \hat{u} (\varphi u).$$

We may eliminate the second occurrence of the class term by applying the contextual definition mentioned on p. 25 of *Principia*. We obtain:

$$\varphi \{ \hat{u} (\varphi u) \}.$$

A second contextual definition, the one mentioned on p. 76 of *Principia*, is then used to eliminate the remaining class-term. We end up with:

$$(\exists \psi) ((\forall x) (\varphi x \equiv \psi ! x) \& \varphi \{ \psi ! \hat{u} \}).$$

The right-hand conjunct purports to express the result of putting one propositional function,  $\psi ! \hat{u}$ , in the argument-place of another,  $\varphi \hat{u}$ . The paradox is resolved by arguing that this conjunct is nonsense. Wittgenstein observes that the symbol  $\varphi$ :

cannot possibly stand to the left of (or in any other relation to) the symbol of a property. For the symbol of a property, e.g.,  $\psi x$ , is *that*  $\psi$  stands to the left of a name form, and another symbol  $\varphi$  cannot possibly stand to the left of such a *fact*: if it could, we should have an illogical language,<sup>27</sup> which is impossible.

(*Moore Notes*, Wittgenstein 1979: 116)

The resolution makes use of the key point that the symbol for a property is not a predicate sign, but a fact. In the predicate ' $\psi x$ ' what symbolizes is the fact that ' $\psi$ ' stands to the left of a 'name form'. Consequently for the predication ' $\varphi(\psi x)$ ' to have significance—given the

fact, guaranteed by the meaningfulness of the biconditional, that 'φ' and 'ψ!' symbolize in the same way— there would have to be significance to the *fact* that the letter 'φ' stands immediately to the left of another *fact*, and of course there are no such facts – which is just to say that here our words fail to make sense.

## 5 Compositionality and the Context Principle

As Cora Diamond has done much to emphasize,<sup>28</sup> there is something perfectly 'natural' about the conception of nonsense to which Wittgenstein is opposed. This has much to do, I think, with our intuitive appreciation of the creative aspect of natural language – its so-called 'compositionality'.<sup>29</sup> This is something to which the *Tractatus* attaches great importance: 'A proposition,' says Wittgenstein, 'must communicate a new sense with old words' (4.03). This requirement is a consequence of the platitude that 'I understand the proposition without its sense having been explained to me' (4.021). Obviously, if I am to understand a sentence which I have never heard before without being told what it means, I will have to make use of my prior grasp of its component words.

Our tacit appreciation of the compositionality of language encourages the natural view of nonsense because it makes it seem as though in the case of nonsense 'sentences', as in the case of genuine sentences, we must deploy our prior understanding of the component words in a preliminary attempt to make sense of the newly presented string. This leads to a view of a nonsense 'sentence' as a string of meaningful words that has somehow failed to gel into a proposition.<sup>30</sup>

The problem can appear intractable so long as the meaning-bearing elements of a sentence are taken to be *signs*, but if we follow Wittgenstein in taking them to be *facts*, the puzzle resolves itself. For on this alternative approach, we can view the nonsense ‘sentence’ ‘Plato Socrates’ as wholly devoid of meaning-bearing elements, even though it contains *signs* that figure significantly in other contexts. When we are presented with a string of phonemes we first have to find the significant facts, if any, and then grasp their significance. This does not mean that understanding a novel sentence is a purely creative act, unconstrained by features of that sentence, for our interpretation of a novel sentence is guided by our recognition of certain familiar *signs* that crop up again in that sentence. In making sense of a novel sentence we will (tacitly) hypothesize that these signs play host to certain ‘symbolizing facts’<sup>31</sup> to which we have given meaning in the language.<sup>32</sup> In a nonsense ‘sentence’ this preliminary hypothesis fails: there turn out to be no symbolizing facts in the string. But in a meaningful sentence, once we have recognized the relevant symbolizing facts in the presented string, we will be able to deploy our knowledge of their significance to make sense of the string. What we bring to a newly presented string is therefore not a grasp of its constituent signs’ meanings but, in the first place, a number of working hypotheses concerning the symbolizing facts to which its constituent signs ‘belong’ and, in the second place, a grasp of *their* significance. For it is the symbolizing facts that in the first instance have the meanings, not the signs they are facts about.<sup>33</sup>)

Wittgenstein tells us that: ‘In order to recognize the symbol in the sign we must consider the significant use’ (3.326). This remark is related both to the *Tractatus*’s context principle (3.3) and to Russell’s notion of ‘definition in use.’<sup>34</sup> Its point is that in order to see how a word is functioning – to recognize the symbol,<sup>35</sup> if any, to which it belongs – one must

consider the sign as used in *significant* sentences. Wittgenstein makes these points clear in the course of his explanation to Ogden of 3.326. He says:

The meaning of the proposition is: that in order to recognize the symbol in a sign we must look at how this sign is *used* significantly in propositions. I.e. we must observe how the sign is used in accordance with the laws of logical syntax. Thus ‘significant’ here means as much as ‘syntactically correct’.<sup>36</sup>

(Wittgenstein 1973: 59<sup>37</sup>)

3.326 is both an injunction and a prohibition. It enjoins us, when we are asking to what symbol a sign belongs, to consider how the sign functions in whole meaningful sentences. It demands that we remain alert to the possibility that a sign may have no meaning in isolation, but only, as Russell puts it, a ‘definition in use’. (This, of course, is precisely how Russell regards denoting phrases from 1905 onwards.<sup>38</sup>) It prohibits us from asking after the function of the individual words in strings, such as ‘Socrates is identical’, which transgress what Wittgenstein here calls ‘the laws of logical syntax’. Such strings are ones in which phonemes or graphemes that occur meaningfully in other contexts are put together in ways that fail to produce a symbol. So Wittgenstein means that it is only in the context of a sentence-sized symbol – a proposition – that a sign can belong to a symbol, and so have a semantic function or meaning.

## **6 The flaw in the ‘natural view’ of nonsense**

I have been arguing that Wittgenstein's theory of symbolism is intended to unmask as illusory the very phenomenon that the Theory of Types was developed to explain. It is meant to make clear the unavailability of a certain conception of a nonsense 'sentence', namely, as a string that is nonsense on account of the meanings of its meaningful parts.<sup>39</sup> I have been calling such imagined strings 'intrinsically illegitimate symbols'.

Wittgenstein's objections to this conception arise from his awareness that it brings with it a commitment to a Theory of Types.<sup>40</sup> His thought is that if we assume there can be nonsense that is nonsense in virtue of the meanings of its component words, we shall need a Theory of Types to explain why some combinations of meanings are legitimate, others not. But then – this is Wittgenstein's ultimate objection – our conception of nonsense will inherit all the problems peculiar to a Theory of Types, and chief among them the problem that our attempts to assign types to entities will themselves violate type restrictions. I elaborate this point below.

I should emphasize that in making this claim I am going against an influential line of interpretation of the *Tractatus*, according to which Wittgenstein is supposed to regard the idea of an intrinsically illegitimate symbol as *immediately* incoherent. The view I have in mind is the one set out by Cora Diamond in her important paper 'What Nonsense Might be'.<sup>41</sup> Diamond suggests that in rejecting intrinsically illegitimate symbols Wittgenstein – and in her view also Frege – implicitly reason as follows: 'If nonsense is explained as the result of an illegitimate combination of meaningful elements, then we shall be committed to an incoherent view of a nonsense sentence as one that is nonsense *because of what it says*'. Referring to this view as the 'natural view' of nonsense,<sup>42</sup> Diamond says:

[The natural view of nonsense holds that] whether a sentence makes sense or not is functionally dependent on its parts ... .The idea is that if you say ‘Caesar is a prime number’ and you mean ‘Caesar’ as a person’s name and you mean the last four words in exactly the sense they have in ‘53 is a prime number’ then the reason what you say is nonsense is that *the person Caesar having the property* you said 53 had – that is impossible, *that* makes no sense.

(Diamond 1991: 104)

She concludes:

...[T]he idea that the sentence is nonsense because of the categories of the expressions illegitimately combined in it is implicitly (this is the diagnosis of the natural view from the Frege-Wittgenstein position) the idea of their forming a sentence which *does* say something – something which the holder of the natural view regards as an impossibility and which he denies is really sayable at all ....

(Diamond 1991: 105)

This last passage contains the core idea of Diamond’s diagnosis: someone who sees nonsense as arising from an illegitimate combination of meaningful signs is committed to viewing a nonsense ‘sentence’ as after all *saying* something. I regard it as doubtful, however, that just holding that ‘whether a sentence makes sense or not is functionally dependent on its parts’ really does commit one to such an *immediately* self-refuting view. Russell, for example, takes meaningless sentences to be meaningless in virtue of the

meanings of their component words, but he is not, on the face of it, thereby committed to holding them to be meaningless in virtue of *what they mean*.

Consider, for example, his explanation of why ' $\phi(\phi x)$ ' is nonsense. (Here I summarize a passage from Ch. 2, §2, of *Principia*.<sup>43</sup>) There cannot be values of a propositional function that 'involve' that very propositional function. For if there could be, the propositional function could never be determinate. It is indeterminate until all its values are determinate, but if any one of these values 'involves' the function itself, it will not be determinate until the function is. Consequently, there is no such thing as the value for  $\phi^x$  with the argument  $\phi^x$  or with any argument that involves  $\phi^x$ . But that means the expression ' $\phi(\phi x)$ ' fails to express a proposition. Therefore it is not significant.

I detect no appeal here – not even an implicit appeal – to a notion of what the sentence says, nor any to a notion of what it would say if it made sense. The explanation appeals only to the entities which the various words mean, and the arguments for which propositional functions are 'defined' (that is to say, have values). If there is an incoherence in this explanation, it does not lie in any appeal to what the sentence says, or would say if, *per impossibile*, it made sense.

This point becomes more obvious if we consider how Russell would explain why 'Socrates is mortal' *is* meaningful. Russell would say that the sentence makes sense because the propositional function expressed by 'is mortal' yields a proposition as value for Socrates as argument. He would *not* say, and he is not committed to saying, that it makes sense because

it *represents* Socrates as occupying the argument-place of the propositional function  $x^{\wedge}$  is mortal.

Similarly, no appeal need be made to what the sentence says, or would say, in a Russellian explanation of why ‘Caesar is a prime number’ is nonsense. Russell would say that ‘Caesar’ designates the individual Caesar, while ‘is a prime number’ expresses the propositional function  $x$  is a prime number. He would point out that the propositional function  $x$  is a prime number is a propositional function yielding a proposition as value only for a class of classes of individuals as argument, and he would note that Caesar is not a class of classes of individuals.<sup>44</sup>

It is this last remark, and similar ones, that cause Russell his real difficulties. The predicate ‘is a class of classes of individuals’, being a predicate of classes, ought not to make sense when predicated of individuals; but if not, then on the assumption that the negation of nonsense is also nonsense ‘Caesar is not a class of classes of individuals’ ought to make no sense either. It follows that the *explanation* of why ‘Caesar is a prime number’ is nonsense is itself nonsense.

The problem is quite general: because statements purporting to exclude certain entities from certain types themselves violate type restrictions, the theory is committed to the truth of things that by its own lights it cannot express. So there *is* an incoherence in the attempt to represent a sentence as meaningless in virtue of the meanings of its parts, but it is rather more deeply buried than Diamond’s reading would make it seem. That said, it should be noted that while a Diamond-style critique does not work *in general*, it does work for a

*special class* of nonsense ‘sentences’, namely, those containing predicates that purport to specify the *type* of an entity. As we have seen, Russell would have to count the sentence ‘Caesar is a class of classes of individuals’ as failing to express a proposition precisely because *Caesar is not a class of classes of individuals*. And to view the sentence in this way *is* plausibly to regard it as nonsense in virtue of what it means.

## 7 Logical syntax

With this background in place, I want to return to the theme that ‘logic must take care of itself’. In the *Tractatus* the closest Wittgenstein comes to cashing out this slogan is in the first of the remarks with which we began:

The rules of logical syntax must go without saying, once we know how each individual sign signifies. (3.334) (translation mine)

The discussion so far suggests the following interpretation of this remark: once we have a ‘theory of symbolism’ that ‘establishes’ the logical syntax of a language by specifying ‘how each sign signifies’ there is no need for *rules* to tell us which strings of signs make sense and which do not, and so no need for a Theory of Types to motivate these rules. Instead, when a string of signs ‘hosts’ a symbolizing fact (a fact that has significance in the language) this will be apparent to one attempting to make sense of it: in a certain sense the presence of the symbolizing fact will ‘speak for itself’. And since a ‘theory of symbolism’ states ‘how’ a sign means,<sup>45</sup> but not ‘what’ it means, we attain the desired result that logical

syntax is something that can be established ‘without mention thereby being made of the meaning of a sign (3.33)’.

Wittgenstein emphasizes that:

In the language of everyday life [*Umgangssprache*] it very often happens that the same word<sup>46</sup> signifies in different ways – and therefore belongs to different symbols – or that two words, which signify in different ways, are apparently applied in the same way in the proposition.

Thus the word ‘is’ appears as the copula, as the sign of equality, and as the expression of existence; ‘to exist’ as an intransitive verb like ‘to go’; ‘identical’ as an adjective; we speak of *something* but also of the fact of *something*['s] happening. (3.323)

Because everyday language tolerates signs that symbolize in different ways and so ‘belong to more than one symbol’, there is a gap between perceiving a sign and knowing how it symbolizes. We have to recognize the symbol *in* the sign (3.326), the sign being the perceptible part of the symbol (3.32); and since that is not always a straightforward accomplishment, we can occasionally form the wrong view about how a sign is symbolizing in a particular sentence.

Wittgenstein takes this fact to be the source of much (unspecified) philosophical error (cf. 3.323–3.324). (One thing he may have in mind is the ontology arising from the views of Russell ca. 1901 – and of Russell’s Meinong – which involves the claim that expressions

such as ‘the golden mountain’ and ‘the round square’ function as genuine singular terms.)

‘In order to avoid these errors’, says Wittgenstein:

we must employ a sign-language [*Zeichensprache*] which excludes them, by not applying the same sign in different symbols and by not applying signs in the same way which signify in different ways. A sign-language, that is to say, which obeys the rules of *logical* grammar – of logical syntax.

(The logical symbolism [*Begriffsschrift*] of Frege and Russell is such a language, which, however, does still not exclude all errors.) (translation my own) (3.325)

So when constructing a sign-language we are supposed to set things up so that no sign belongs to more than one symbol, and so that signs which signify in different ways have very different – indeed, complementary – grammatical distributions (e.g. ‘nobody’ will never occur where a proper name can occur).<sup>47</sup>

But if a properly constructed *Begriffsschrift* would avoid the errors possible in an ordinary language, one might wonder why Wittgenstein maintains that: ‘All propositions of our colloquial [i.e. ordinary] language are actually, just as they are, logically completely in order [*logisch vollkommen geordnet*]’ (5.5563)? Surely if natural languages encourage certain erroneous habits of thought, there is a sense in which they are not in perfect logical order just as they stand. I want to conclude by tying up this loose thread.

It is clear that there is indeed *a* sense in which natural languages are not in perfect logical order, but it is not, I think, the one at issue at 5.5563. The point there is that *for the purposes of everyday linguistic commerce*, the sentences of ordinary language are in perfect working order. Wittgenstein means that there is nothing defective about their *expressive capacity*; they are in no way vague or confused formulations of something conveyable with greater precision in a formalized language.

This interpretation seems to be confirmed by Wittgenstein's explanation to Ogden of what he had meant at 5.5563

‘...logically completely ordered’ [*logisch vollkommen geordnet*]. By this I meant to say that the prop[osition]s of our ordinary language are not in any way logically *less correct* or less exact or *more confused* than propositions written down, say, in Russell[’s] symbolism or any other ‘Begriffsschrift’. (Only it is easier for us to gather their logical form when they are expressed in an appropriate symbolism.)  
(Wittgenstein 1973: 50)

The advantage of a *Begriffsschrift*, then, is that it makes clearer the underlying logical form of sentences of ordinary language. Ideally, it would do so by making evident to us just how each sign is functioning – to what symbolizing fact it belongs. A properly constructed *Begriffsschrift* obeys ‘the laws of logical syntax’<sup>48</sup> in the sense of not deeming well-formed strings of signs that contain no symbols.<sup>49</sup> But in order to be a competent speaker of a natural language one obviously does not have to have an insight into the workings of one’s language of the kind afforded by a *Begriffsschrift*. A *Begriffsschrift* is merely an aid to those who might otherwise be misled *philosophically* by certain apparent analogies between

functionally remote parts of the language. A properly constructed *Begriffsschrift* should act as a corrective to these tendencies, not by reforming everyday language, but by inculcating a proper sense of the distance between the surface grammar of natural languages and the underlying ‘logical’ grammar revealed by analysis.<sup>50</sup>



<sup>1</sup> Translation my own. The Ogden translation (which, unless stated otherwise, I use) has ‘must follow of themselves’. I use the Ogden translation as my starting point, despite its problems, because, being partly Wittgenstein’s own work, it has something of the character of a primary text.

<sup>2</sup> Hereafter I shall refer to remarks from the *Tractatus* by proposition number alone.

<sup>3</sup> See the extract from the letter to Russell of January 1913 quoted in §1 below.

<sup>4</sup> Wittgenstein, of course, is primarily interested in nonsense ‘sentences’ that seem to convey a content, rather than transparent cases of gibberish.

<sup>5</sup> I read this as saying: ‘not because this is a symbol which is intrinsically impermissible’.

<sup>6</sup> Cf. 5.4733.

<sup>7</sup> In the *Principles of Mathematics* Russell says: ‘The solution [to Russell’s paradox] ... was that it is necessary to distinguish various types of objects, namely terms, classes of terms, classes of classes, classes of couples of terms,’ (Russell 1903: §106, p. 107). (Of course, linguistic items are themselves ‘objects’, and so occupy a place within this hierarchy.)

<sup>8</sup> It is, for example, no solution to Russell’s paradox simply to stipulate that such strings as ‘ $x$  is a member of  $x$ ’ are nonsensical, and then to set down syntactic rules that entail this, for one would still need to say *why* such strings should count as nonsense. Russell’s Theory of Types, being a theory of which entities combine to yield propositions, is designed to provide the needed motivation.

<sup>9</sup> The expression ‘ $(\exists x, y) \in_1 (x, y)$ ’ is not a sentence but merely a name of a ‘form’. The continuation of the letter makes clear that Wittgenstein regards it as a *simple* sign.

<sup>10</sup> I have supplied the needed quotes around ‘ $a$ ’, ‘ $R$ ’ and ‘ $b$ ’, and rendered Wittgenstein’s italics consistent.

<sup>11</sup> Throughout I shall use this abbreviation for the ‘Notes dictated to G. E. Moore in Norway’, which is appendix II in Wittgenstein 1979.

<sup>12</sup> I take a ‘name form’ to be an arbitrary name.

<sup>13</sup> Wittgenstein 1995: 102. If McGuinness is correct, this letter would have been written only a few months before Wittgenstein began composing a ‘summary’ of his earlier ideas – a document which McGuinness estimates that Wittgenstein wrote between October 1915 and March 1916, and which he conjectures contains the material that figures in the first seventy sides of *Prototractatus* (see McGuinness 1989).

<sup>14</sup> Further details are contained in the introduction to Proops 1998.

<sup>15</sup> As it stands, Wittgenstein’s explanation needs a minor supplementation. If ‘Plato Socrates’ is to be a significant sentence – in which ‘Plato’ and ‘Socrates’ function as typographically unitary elements – what is necessary, obviously, is *either* that the word ‘Socrates’ has meaning as a name, while the fact that a token of ‘Plato’ stands immediately to the left of a token of a name has significance, *or else* that the word ‘Plato’ has meaning as a name, while the fact that a token of ‘Socrates’ stands immediately to the right of a token of a name has significance.

<sup>16</sup> Otherwise it would not be true that we could establish the sign’s syntax without stating its meaning (recall 3.33). For details of how one might go about identifying a noun phrase using non-semantic criteria see, for example, Ch. 2, sections 3–6, of Radford 1988.

<sup>17</sup> In the *Notebooks* Wittgenstein describes the idea that ‘it must be impossible for us to go wrong in logic’ as an ‘extremely important and profound insight’, which he takes already to be partly expressed by saying: ‘Logic must take care of itself’ (Wittgenstein 1979: 2).

<sup>18</sup> In this context we should read ‘words’ as ‘meaning-bearing elements’.

<sup>19</sup> The following remark from Diamond 1991: 197 seems to suggest the opposing view: [T]he sentence ‘Socrates is identical’ is legitimately put together, in the sense in which ‘Socrates is frabble’ is, as far as its structure goes, legitimately put together. Both contain what are syntactically adjectives; all they need is for some adjectival meaning to be fixed for them. What I am emphasizing is that on Wittgenstein’s view, the *only* thing wrong with ‘Socrates is identical’ is the absence of an adjectival meaning for ‘identical’...’. By suggesting that ‘is frabble’ and ‘is identical’ function in these contexts as adjectives, Diamond implies that the strings in which they occur can be assigned a determinate syntactic structure.

<sup>20</sup> I am grateful to Charles Travis for this point.

<sup>21</sup> Here I have restored an emphasis present in the original manuscript of the *Moore Notes*, but lost in the published forms. (Cambridge University Library, G. E. Moore Archive, Ref: Add 8875, 10/7/1–3.)

<sup>22</sup> Wittgenstein 1989b: 3.

<sup>23</sup> Wittgenstein 1979: 70.

<sup>24</sup> Whether there is such a thing as well-formed nonsense is of course a separate question. Richard Gaskin discusses considerations that might suggest an affirmative answer in his 1997.

<sup>25</sup> See Russell 1990: 77. My understanding of the role played by Wittgenstein’s ‘theory of symbolism’ in his resolution of the paradox owes much to the discussion in Sullivan 2000.

<sup>26</sup> Here I am in agreement with Hidé Ishiguro. See Ishiguro 1981: 56.

<sup>27</sup> Note that an ‘illogical language’ is conceived not as a language containing sentences that purport to represent impossible situations, but as a language in which symbols are

impossibly combined. So when earlier in the *Moore Notes* Wittgenstein characterizes an ‘illogical language’ as ‘one in which, e.g., you could put an *event* into a hole’ (Wittgenstein 1979: 108), he should be taken to be discussing a language whose imagined symbols are supposed to consist of events and items with holes into which these events are put when one tries to form a sentence of the illogical language. A sentence of an ‘illogical language’ is thus an impossible attempt at a saying, not an attempt to say the impossible. Contrast Diamond: ‘An ‘illogical language’ would be one in which [the sentence ‘the event: the execution of the Charles I in 1649, is in the crater of Vesuvius’] would say of an event that it was in a crater’ (Diamond 1991: 105).

<sup>28</sup> See Diamond 1991, *passim*.

<sup>29</sup> I have argued elsewhere (1998: Ch.3, §1) that compositionality is the main ground Wittgenstein offers for the picture theory.

<sup>30</sup> This problem has been posed in a particularly sharp form by Michael Dummett (see Dummett 1973: Ch. 1).

<sup>31</sup> The term ‘symbolizing fact’ comes from the *Notes on Logic*. Wittgenstein says: ‘The symbolizing fact in a-p-b is that, SAY *a* is on the left of *p* and *b* on the right of *p*’ (Wittgenstein 1979: 94; Wittgenstein’s emphasis).

<sup>32</sup> The facts involved are general – ‘*a* token of “Plato”’ etc..

<sup>33</sup> We should think of symbols as the primary bearers of meaning (I take a symbol to be a symbolizing fact together with its meaning). Signs can also be said to have meaning but only in a derivative sense. They do so in virtue of there being facts about them that bear significance in a language.

<sup>34</sup> Russell 1990: 66.

<sup>35</sup> On ‘symbol’ see n.33 above.

<sup>36</sup> The equation here of ‘significance’ with ‘syntactical correctness’ would seem to be further evidence that Wittgenstein had no time for syntactically well-formed nonsense.

<sup>37</sup> The remark is in English.

<sup>38</sup> Russell cites the sign ‘ $\nabla^2$ ’ as such a sign (Russell 1990: 66), and it is the point of the theory of descriptions to argue that definite descriptions and other denoting phrases also function in this way.

<sup>39</sup> Wittgenstein, of course, does countenance strings that are without sense (*sinnlos*) in virtue of the meanings of their meaningful parts, for that is just how he conceives tautology and contradiction (cf. *Moore Notes*, Wittgenstein 1979: 118).

<sup>40</sup> See the extract from the letter to Russell of January 1913 quoted in §1 above.

<sup>41</sup> Diamond 1991: 95–114.

<sup>42</sup> Strictly speaking, this can only be the ‘natural view’ of nonsense ‘sentences’ that seem to contain words that are meaningful in the language (e.g. ‘Plato Socrates’). The natural view of ‘The slithy toves did gyre and gimble’, by contrast, would presumably be that it contains nonsense ‘words’ (i.e. ‘words’ that have been given no meaning in the language) and that, of course, is also Wittgenstein’s view. But having noted this problem with Diamond’s terminology, I shall continue to use ‘the natural view’ as a label for the view Wittgenstein is attacking.

<sup>43</sup> Russell 1990.

<sup>44</sup> Because there are numbers at every level of the hierarchy above classes of individuals, there will actually be many such explanations, depending on where in the hierarchy we suppose the propositional function expressed by ‘ $x$  is a prime number’ to occur.

<sup>45</sup> It says to what ‘symbolizing fact’ a given sign belongs.

<sup>46</sup> Notice that the word is something phonological or typographical: it can belong to more than one symbol. To say that *it* signifies is misleading, unless we mean that it signifies by belonging to a symbol that signifies.

<sup>47</sup> Since these artificially constructed languages are ‘set up’ by means of stated formation rules, it is clear that Wittgenstein does not mean to exclude the possibility of such rules by saying that ‘the rules of logical syntax must go without saying’. His point is best viewed as a combination of two thoughts. He means first that in the case of natural languages such rules – which govern the combinatory possibilities of *signs* – are unnecessary, and secondly that for both natural and artificial languages the idea of rules governing the combinatory possibilities of *symbols* is incoherent.

<sup>48</sup> The phrase occurs in the remark to Ogden quoted in §5 above.

<sup>49</sup> It follows that an improperly constructed *Begriffsschrift* could be said to ‘break the laws of logical syntax’ by counting as well-formed certain strings of signs that fail to ‘host’ any symbolizing fact. Note, however, that such a breach does not involve framing a sentence that is improperly constructed on account of the meanings of its parts – it has been the major burden of this essay to explain why Wittgenstein would have thought that such breaches or mistakes were impossible.

<sup>50</sup> I owe thanks to Jamie Tappenden, P. J. Ivanhoe, Gary Ebbs, Charles Travis, Stewart Candlish, Richard Gaskin and Jim Levine for detailed feedback on drafts of this paper. I should also like to thank Richmond Thomason, Thomas Hofweber and James Higginbotham for more general advice and discussion, and Richard Gaskin for his especially thorough editorial work. A version of the paper was presented in June 2000 at a workshop on the *Tractatus*, held at the University of Utrecht. I am grateful to all who participated in the discussion, and especially to Peter Sullivan, Thomas Ricketts, Warren

Goldfarb and Michael Kremer. I should also like to thank the organizers of the workshop,  
Menno Lievers and Göran Sundholm.