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Assertion, Saying and Propositional Complexity in Wittgenstein's *Tractatus*

Wittgenstein responds in his *Notes on Logic* to a discussion of Russell's *Principles of Mathematics* concerning assertion. Where Russell writes:

> It is plain that, if I may be allowed to use the word assertion in a non-psychological sense, the proposition "*p* implies *q*" *asserts* an implication, though it does not *assert p* or *q*. The *p* and the *q* which enter into this proposition are not strictly the same as the *p* or the *q* which are separate propositions. (PoM p35)

Wittgenstein replies:

> Assertion is merely psychological. In *not-p*, *p* is exactly the same as if it stands alone; this point is absolutely fundamental. (NB p95)

Wittgenstein's response is intriguing, not least because of the centrality to his *Tractatus* of the idea that a proposition says something. This paper will examine that idea, distinguishing it from 'merely psychological' assertion, and explore in this context how we should understand the occurrence of a Tractarian proposition within another.

1.

In his 1903 *Principles of Mathematics* Russell makes a distinction between asserted and unasserted propositions. Whilst this distinction is not given a fully worked out account, Russell sees it as a point of considerable theoretical importance. It is introduced in the context of a separation by Russell of *modus ponens* from the proposition that "if *p* and *q* be propositions then *p* together with "*p* implies *q*" implies *q*" (PoM 35). An instance of inferring with *modus ponens* has the form 'p; p implies q; therefore q', and is distinct, Russell insists, from any proposition of the form '(p and (p implies q)) implies q'.[1] Spelling this distinction out, Russell writes that "the notion of *therefore* … is quite different from the notion of *implies*" (PoM p35), and indeed that these different notions "hold between different entities" (PoM p35):

> When we say *therefore*, we state a relation which can only hold between asserted propositions, and which thus differs from implication. (PoM p35)

While the 'p', 'p implies q' and 'q' that figure in 'p; p implies q; therefore q' are asserted propositions, the 'p', 'p implies q' and 'q' that figure in '(p and (p implies q)) implies q' are unasserted propositions.

Over the course of introducing in this way the idea of asserted and unasserted propositions, Russell makes a number of further points. Most firmly, Russell insists that for a proposition to be asserted is not for it to be the object of an external act of assertion. On the contrary, "assertion … is, in some sense, contained in an asserted proposition. … [A]ssertion is not a term to which *p*, when asserted, has an external relation" (PoM p504). This may sound a little odd; indeed, the idea that assertion is 'contained in' an asserted proposition sounds very much like the idea that an asserted proposition is a proposition that asserts something, that an assert*ed* proposition is an assert*ing* proposition. Russell, however, appears to endorse this move: the asserted proposition 'p', he implies, asserts that p:

> It is plain that, if I may be allowed to use the word assertion in a non-psychological sense, the proposition "*p* implies *q*" *asserts* an implication, though it does not *assert p* or *q*. The *p* and the *q* which enter into this proposition are not strictly the same as the *p* or the *q* which are separate propositions. (PoM p35)

These two sentences offer important further insight into Russell's thinking. First, Russell is eager to emphasise here as elsewhere that "the difference which [he] desires to express is genuinely logical" (PoM p35) as opposed to psychological. This is reasonable given on the one hand that mental acts of judgment are certainly not what he wants to discuss, and on the other that he takes the notion of assertion, connecting as it does with his notion of *therefore*, to be centrally involved in the notion of proof.[2] More, Russell appears to commit in the above passage to 'separate propositions', that is – it would seem – to propositions that are not a part of another proposition, being asserted propositions. This, together with the claim that 'p' is unasserted in 'p implies q', suggests also its converse, namely that a proposition which is a part of another proposition is unasserted. 'p' is unasserted as it occurs in 'p or q' and 'not-p' just as it is in 'p implies q'. Finally, in reasoning from the fact that 'p implies q' does not assert that p to the claim that the 'p' that occurs in 'p implies q' is not asserted/asserting, Russell tacitly assumes that if the 'p' which enters into 'p implies q' were to assert that p then so too would 'p implies q'. This is a substantial assumption suggesting – for one thing – that Russell thinks of assertion as quite different from reference: it is normal to suppose with Frege that a referring expression may occur within another without the latter thereby referring to the referent of the former.

A further line in Russell's thinking about assertedness connects assertedness to truth, but this line leads immediately, as Russell recognises, to "grave difficulties" (PoM p35), and is in any case of no interest to Wittgenstein. We shall therefore restrict our attention to the above remarks. And idiosyncratic and inexplicit as they may be, it might be thought that Russell is picking up here on something we shall want to endorse. There is a sense of assertion such that whilst the first premise of the argument 'p; p implies q; therefore q' asserts that p, the 'p' of the second premise does not assert anything. More, it seems correct that assertion in this sense is quite unlike reference. We should, however, be careful in our endorsement. For Russellian propositions are not sentences: they are rather what sentences express.[3] And if in the argument 'p; p implies q; therefore q' the propositions 'p' and 'q' that are (expressed by) the first premise and conclusion are not strictly the same as the propositions 'p' and 'q' that appear in (what is expressed by) the second premise, then how is the proof to be valid? For the proof to be valid, the propositions 'p' and 'q' must surely be the same throughout. How, one might well wonder, does Russell's distinction of assertedness not in fact undermine *modus ponens*?

2.

Russell adds as a footnote to his discussion that Frege "has a special symbol to denote assertion" (PoM p35). Frege's ideas came to Russell too late to influence his main text, but they do significantly inform Wittgenstein's thinking. Before turning to Wittgenstein, then, let's take a look also at Frege.

When introducing the formal script of his *Grundgesetze*, Frege writes:

> We have already said that nothing at all is asserted in a mere equation; '2+3=5' simply designates a truth value, without saying which of the two it is. … We

therefore need a special sign to be able to assert something as true. For this purpose I place before the name of the truth-value the sign '⊢' , so that, for example, in

$$\vdash 2^2 = 4$$

it is asserted that the square of 2 is 4. (GG §5)

This sign '⊢' may be placed at the beginning of a formula only, never within a formula – '⊢ Δ implies ⊢ Γ' is not well formed. More, the sign has a central role in Frege's conduct of proof. In particular, it is involved in Frege's principle of *modus ponens*:

From the sentences '⊢ Δ implies Γ' and '⊢ Δ' one can infer: '⊢ Γ'. (GG §14)

As Russell's footnote suggests, this all looks very much like his own discussion in the *Principles*, with Frege's distinction in his script between '⊢ p' and 'p' corresponding to Russell's distinction between asserted and unasserted propositions. Frege goes beyond anything Russell says, however, when he explains his *Urteilsstrich* – the vertical component of his sign '⊢' – as "conveying assertoric force" (Frege 1979 p195).[4] A short account of what Frege means by this will be useful.

 Frege makes a distinction between assertoric force and assertoric form. Assertoric form is what conveys assertoric force, and is what is constituted in Frege's script by his sign '⊢'. '⊢ p' is a sentence of assertoric form; it is an assertoric sentence of Frege's script. Assertoric form conveys assertoric force in that a token sentence's being of assertoric form is *ceteris paribus* sufficient for its having assertoric force. (So Frege speaks of assertoric force as 'arising from' and 'lying in' assertoric form.) Assertoric form is not, however, sufficient *simpliciter* for assertoric force: a sentence of assertoric form may on occasion 'lose its assertoric force', as, for example, when spoken by an actor on a stage:

> [B]y *judgment* I understand the acknowledgement of the truth of a *thought*. The representation of a judgment in *Begriffsschrift* by means of the sign '⊢' I call a *Begriffsschrift proposition*. (GG §5)

> We express acknowledgement of truth in the form of an assertoric sentence. We do not need the word 'true' for this. And even when we do use it the properly assertoric force does not lie in it, but in the assertoric sentence-form; and where this form loses its assertoric force, the word 'true' cannot put it back again. (Frege 1918 p330)

> The truth claim arises in each case from the form of the assertoric sentence, and when the latter lacks its usual force, e.g., in the mouth of an actor upon the stage, even the sentence 'The thought that 5 is a prime number is true' contains only a thought. (Frege 1892 p158)

But what is assertoric force, and why does Frege hold that an actor's utterances on the stage do not have it? Well, for a token sentence to have assertoric force is for its production to constitute a conventional act by its author of representing oneself as judging. This is the linguistic act of *assertion*: in introducing his sign '⊢', Frege is laying down a convention for his script such that "by writing '⊢ 2+3 = 5' we assert that 2+3 equals 5" (Frege 1891 p142). This linguistic act of assertion, Frege further suggests, is to be contrasted with that of *asking*:

> An interrogative sentence and an assertoric one contain the same thought; but the assertoric sentence contains something else as well, namely assertion. The interrogative sentence contains something more too, namely a request. (Frege 1918 p329)

The Fregean (style) formula '⊢ The door is shut' would, it seems, be Frege's writing of the English sentence 'The door is shut.' as this contrasts with the sentences 'Is the door shut?' and 'Shut the door!'. As for the actor on the stage, the actor's utterances do not have assertoric or interrogative etc. force because the context of the stage is such that assertoric or interrogative form makes there only for the pretence of assertion or asking and not for assertion or asking proper:

> When we utter an assertoric sentence, we do not always utter it with assertoric force. An actor on the stage and poet reading from his works will both give frequent utterance to assertoric sentences, but the circumstances show that their utterances do not have assertoric force. They only act as if they were making assertions. (Frege 1979 p233)

It would take us too far astray significantly to expand upon or defend this interpretation of Fregean force. We can, however, quickly fit the account given back with certain key features seen above of Frege's use of his sign '⊢', and also provide a Fregean diagnosis of the difficulty arising for Russell at the end of the last section. First here, we can see why the sign is to appear at the beginning of sentences only. The author of a sentence 'p implies q' asserts, if anything, only that p implies q. In particular, she asserts neither that p nor that q:

> Even if the whole compound [conditional] sentence is uttered with assertoric force, one is still asserting neither the truth of the thought in the antecedent nor that of the thought in the consequent. The recognition of truth extends rather over a thought that is expressed in the whole compound sentence. (Frege 1979 pp185-6)

Equally, sense is made of Frege's use of the sign in formulating *modus ponens*. The author of a proof does not merely put the proof's premises and conclusion forward for inspection: she asserts them. A rule of inference is thus a rule permitting transitions between sentences of assertoric form. And thirdly, the claim that assertoric form is sufficient by default for assertoric force provides for thinking of the sentence '⊢ 2+3 = 5' as itself asserting, or 'containing the assertion', that 2+3 equals 5. So we find Frege's claim that "in '⊢ 2^2 = 4' it is asserted that the square of 2 is 4" (GG §5).

Looking again at Russell's discussion, a Fregean response will begin with the thought that in distinguishing asserted and unasserted propositions in the way he did – that is, in the context of his distinction between *implies* and *therefore*, and with the idea that a proposition occurring within another is unasserted – Russell takes hold of the distinction found in Frege's script between the non-assertoric symbol 'p' contained in '⊢ p implies q' and the assertoric sentence '⊢ p'. This proposal is reinforced by the sense it makes of Russell's implicit assumption that if 'p' as it appears in 'p implies q' were to assert that p, then so too would 'p implies q'. What contains a sentence 'p' of assertoric form (an argument perhaps, or a paragraph) will thereby assert that p: an author of such a piece will *ceteris paribus* assert that p. From here, the Fregean suggestion will however be, Russell stumbles. Centrally, he *mislocates* force. To see how, note that the bearers of Fregean force are linguistic entities: they are sentences. Russellian propositions, on the

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other hand, are not sentences: they are, as we have seen, what sentences express. From Frege's perspective, then, Russell mistakenly supposes that the distinction he would have in view belongs not (only) to language but (also) to the world.[5] This mistake shows its head in Russell's awkward picture of a proposition's being at once asserting and asserted. For Frege the sentence asserts; what it expresses is asserted. And once the mistake is corrected – once it is recognised that assertion is a linguistic phenomenon belonging to sentences only and not to the thoughts/propositions they express – the apparent threat to the validity of *modus ponens* disappears. Whilst the sentence '⊢ p' is no part of the sentence '⊢ p implies q', and so whilst the thought that is asserted by '⊢ p' is not asserted by '⊢ p implies q', this same thought is nonetheless expressed by the symbol 'p' as it appears in both sentences.

3.

Wittgenstein was familiar with Russell's *Principles of Mathematics* from before his arrival in Cambridge, and in 1913 he reacts directly to Russell's discussion there of assertion. To Russell's claim that the logically unasserted 'p' which occurs in 'p implies q' is "not strictly the same" as the logically asserted 'p' which is a "separate proposition", Wittgenstein replies:

> Assertion is merely psychological. In *not-p*, *p* is exactly the same as if it stands alone; this point is absolutely fundamental. (NB p95)

Following this up we find:

> Judgment, question and command are all on the same level. What interests logic in them is only the unasserted proposition. (NB p96)

Let's begin with the claim against Russell that assertion is merely psychological; the claim that "in *not-p*, *p* is exactly the same as if it stands alone" will occupy us later on in the paper. What phenomenon of assertion is Wittgenstein speaking of here? And what is it for something to be psychological as opposed to logical?

The key historical context for Wittgenstein's psychological-logical distinction is the fundamental principle of Frege's *Grundlagen* that there must be "a sharp separation of the psychological from the logical" (Frege 1884 px). In short, this Fregean separation is of what is mental and subjective on the one hand from what concerns truth on the other. As we have seen, Russell's *Principles of Mathematics* also uses the terms 'psychological' and 'logical' as a contrasting pair. The distinction here, at least in the context of assertion, appears to be between mental acts and states directed on propositions and what belongs to the propositions themselves. Russell's distinction looks similar, then, to Frege's. Wittgenstein's distinction, on the other hand, can seem importantly different. Whilst Wittgenstein's notion of logic is as Frege's tied to that of truth – the domain of logic is, roughly, those aspects of the world and our representation of it to which the concept of truth is bound – his use of the term 'psychological' is very different from Frege's. Most noticeably, as Wittgenstein uses the word it does not carry connotations of mentality or subjectivity. So for example Wittgenstein says in the *Notes on Logic* that "the correlation of name and meaning" – the constitution of reference – is psychological (NB p104), but he does not thereby mean that reference is subjective, or is constituted in a mental act.[6] Indeed, one has the strong impression that by 'psychological' Wittgenstein means nothing more than 'of no concern to logic'.

Moving on to the question of what phenomenon of assertion Wittgenstein takes Russell to have mischaracterised as logical, recall our Fregean diagnosis above of Russell's distinction as pertaining to force. Wittgenstein, it seems, takes this same view. What interests logic in judgment, question and command, he says, is the unasserted proposition they have in common. The saying something that belongs to an assertoric sentence but not to an interrogative or imperatival sentence – the saying something that is the having of assertoric form (or perhaps assertoric force: Wittgenstein is not clear on the detail of the assertion he has in view) – is a psychological phenomenon of no interest to logic.[7] This position is neatly expressible if one adopts Ramsey's understanding of a Wittgensteinian proposition as "a type whose instances consist of all propositional sign tokens which have in common, not a certain appearance, but a certain *sense*" (Ramsey 1923 p469). Assertion, Wittgenstein's claim will be, is an achievement belonging to certain tokens of a proposition, but is not an achievement belonging to the proposition itself. Tokens of the sentences 'The door is shut' and 'Is the door shut?' are tokens of the same proposition: they have the same sense. Certainly, where tokens of the former will typically be of assertoric force, those of the latter will typically be of interrogative force, but what concerns logic in the sentences 'The door is shut', 'Is the door shut?' and 'Shut the door!' is the unasserted (unquestioned, uncommanded) proposition – the *proposition*, that is – of which their tokens are all instances.

It may be emphasised again that Wittgenstein's taking force to be a merely psychological phenomenon does not mean he takes it to be a mental phenomenon. On the contrary, Wittgenstein would, I take it, hold the form and force of a token proposition to be as conventionally determined and public a matter as the correlation of a name and its referent. If the author of 'Is the door shut?' asks something, his doing so does not for Wittgenstein any more than for Frege depend upon the existence of some interrogative mental act, but rather on the context of his utterance and the conventions of the language he is speaking. What *is* meant by the claim that force is psychological, however, is that all force is equally psychological: "judgment, question and command are all on the same [psychological] level". For Wittgenstein's purposes, assertoric force does not occupy a privileged theoretical position.

4.

This position of Wittgenstein's 1913 *Notes on Logic* that assertoric force is psychological, may give us pause for two reasons. The first reason concerns the connection both Frege and Russell make between assertoric force and inference. The premises and conclusion of an argument are assertoric sentences/propositions, and it is accordingly in terms of such sentences/propositions that rules of inference are framed. Does this not bring assertion into the logical fold? The short, Wittgensteinian response here is that it does not: logic's concern is not with proof but with truth. Wittgenstein is concerned not with inference (Russell's *therefore*) but with entailment (Russell's *implies*). The specification of an inferential calculus would, for Wittgenstein, be a merely psychological matter. The second reason to pause on Wittgenstein's 1913 claim that assertoric force is psychological will hold us for rather longer.

In the *Tractatus* Wittgenstein declares:

> A proposition *shows* how things stand if it is true. And it *says that* they do so stand. (TLP 4.022)

How is this 1918 Tractarian position that a proposition says something – a central and familiar Tractarian doctrine – to be squared with the 1913 position on force? There are

three options for us here. If we assume that the Tractarian propositional saying talked of in section 4.022 and elsewhere is the having of assertoric form or force, we can either try to reconcile such sections with the claim that such phenomena are psychological, or we can suggest that between 1913 and 1918 Wittgenstein changed his mind as to assertion's logical status. Alternatively we can suggest that Tractarian propositional saying is something quite different from assertion. Let's take these options in turn.

Wittgenstein holds in 1913 that assertoric force is a non-logical phenomenon belonging not to the proposition itself but only to certain of its tokens. If Wittgenstein is to maintain this position in the *Tractatus* and also be speaking in section 4.022 of assertoric force, then more fully spelled out the section would read: 'A proposition shows how things stand if it is true. And when it occurs with assertoric force it says that they do so stand'. But this reading is unacceptable. To see why we need to be clear that Wittgenstein's claim in the *Notes* is not (merely) that the constitution of a proposition's having assertoric force – what makes it the case that it occurs with that force – is psychological. It is rather that assertoric force is itself a psychological phenomenon. This is apparent in the fact that it does not follow from the claim that the constitution of assertion is psychological that logic is interested only in the unasserted (/unasserting) proposition. The constitution of reference is psychological, but this does not mean that logic is interested only in the unreferring name! Indeed, if Wittgenstein's position were that assertion is a logical phenomenon, and that it is only the constitution of assertion that is psychological, then logic would not be interested only in the unasserted proposition: it would be interested in the asserted proposition too. Taking this clarification back to *Tractatus* 4.022, the mooted reading becomes: '... when it occurs with assertoric force, what it says, psychologically, is that they do so stand.' And with this the reading's unacceptability becomes transparent. The saying of which Wittgenstein speaks in *Tractatus* 4.022 is not a psychological saying. It is, as that section implies and as we shall explore below, a logical phenomenon intimately connected with truth. For a proposition to be true is for things to be as that proposition says.
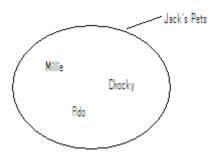
An alternative way to square *Tractatus* 4.022 with the 1913 claim that assertion is merely psychological is to hold as before that *Tractatus* 4.022 speaks of assertoric force but, admitting that what is spoken of there is not a psychological phenomenon, propose that Wittgenstein changed his mind on the nature of assertion. At some point between the 1913 *Notes* and the 1918 *Tractatus* Wittgenstein decides that assertoric force is not psychological after all and brings it back into the realm of logic. This suggestion, straightforward as it may be, is seriously undermined by the fact that Wittgenstein speaks not only in the *Tractatus* but also in the *Notes* of a proposition's saying something. Indeed, in the *Notes* Wittgenstein both types propositions by the kind of thing that they say (NB p96, 107), and also explicitly offers an account propositional saying (NB p96). Whatever it is that Wittgenstein is offering an account of here, it is certainly not the assertion he dismisses elsewhere in the same text as psychological. We have to recognise, then, that Wittgenstein is involved in the *Notes* with two notions of assertion/saying, one to be explained, the other to be ignored as psychological. And once this is recognised, there is no reason to attribute to Wittgenstein a radical change of mind on assertoric force: the clear option is rather to identify Tractarian propositional saying with the non-psychological propositional saying of which Wittgenstein offers an account in the *Notes*. The position to which we are led, then, is the third option from above, namely that Wittgenstein is operating both in the *Notes* and in the *Tractatus* with two distinct notions of assertion. The saying something that is the having of assertoric force (or form) is a psychological phenomenon. This does not belong to the proposition itself but is rather a feature of certain of its occurrences. There is, however, another propositional saying of which Wittgenstein speaks in both the *Tractatus* and the *Notes*. This is a logical

phenomenon belonging to a token proposition merely as such, and it is a phenomenon of which Wittgenstein is in both texts interested to give an account. 'Is the door shut?' says something in the logical sense of *Tractatus* 4.022 exactly as does 'The door is shut'.

5.

What, then, is this Tractarian logical saying that is not the having of assertoric force?

We may take our lead in responding to this question from Wittgenstein's claim that a proposition is a picture (TLP 4.01). With this in mind consider the following diagram:

Does this diagram say anything? We might hesitate to use the word 'say' here. It certainly *represents* something, however: it represents that Millie, Fido and Chocky are Jack's pets. Alternatively we might speak of *situation representation*: the diagram represents the situation of Millie, Fido and Chocky being Jack's pets. These modes of expression are of course equivalent – to represent that Millie, Fido and Chocky are Jack's pets is to represent the situation of Millie, Fido and Chocky being Jack's pets. And the equivalence here is quite general. A situation is *that p*: it is something that may be the case – it may be that p – and something that may be represented – it may be represented that p. The situation of Millie being Jack's pet is the situation that Millie is Jack's pet, and to represent the situation that Millie is Jack's pet is to represent that Millie is Jack's pet.

Now the *Tractatus* is full of remarks involving the idea that a picture, and more particularly a proposition, "represents a possible situation" (TLP 2.202). It also speaks of 'representation that' (TLP 2.15). And with these remarks my straightforward suggestion for propositional saying is that Wittgenstein means by this nothing other than situation representation – the representation, that is, that something is the case. The above diagram says, in this sense, that Millie, Chocky and Fido are Jack's pets.

The purpose of introducing a diagrammatic example here is to make it plausible – even obvious – that this notion of 'saying that' is distinct from the notion of assertoric force. Diagrams can occur with a variety of forces. The above diagram might occur with interrogative force through a convention of placing a question mark underneath it; on another occasion it might have assertoric force through a convention of placing a square underneath it, or if drawn as a response to the question: which animals are Jack's pets? Alternatively, the diagram might have no force at all: it might be used to merely "arouse in the reader the idea" (Frege 1879 §2) of Millie, Chocky and Fido being Jack's pets. Even with the question mark underneath it, however, and even when it is without force, the picture would still represent Millie, Chocky and Fido as Jack's pets. We would still have a representation of the situation of Millie, Chocky and Fido being Jack's pets, a representation that Millie, Chocky and Fido are Jack's pets.

Wittgenstein's position on sentences, the suggestion therefore is, parallels this take on diagrams. An interrogative utterance of 'Is Millie Jack's pet?' represents the situation of Millie being Jack's pet exactly as does an assertoric utterance of 'Millie is Jack's pet'.

They both say that Millie is Jack's pet. This suggestion, we can quickly further note, is precisely the suggestion made above that utterances of 'The door is shut' and 'Is the door shut?' have the same sense. A Tractarian sense is a Tractarian situation, and "what a picture represents is its sense" (TLP 2.221, c.f. TLP 2.202: "A picture represents a possible situation"). Indeed, a proposition's having a certain sense *is* its representing that situation:

> Instead of, 'This proposition has such and such a sense', we can simply say, 'This proposition represents such and such a situation'. (TLP 4.031)

6.

We have made much of the idea that the saying something that is the having of a sense is a logical phenomenon, that it has to do with truth. Let's be explicit now as to what the connection to truth is. Wittgenstein wrote in 1914:

> "[T]rue" and "false" are not accidental properties of a proposition such that, when it has meaning, we can say it is also true or false: on the contrary, to have meaning means to be true or false: the being true or false actually constitutes the relation of the proposition to reality, which we mean by saying that it has meaning (*Sinn* [sense]). (NB p113)

To have a sense is to be true or false: it is to have a truth condition. A sense – a situation – is a truth condition. This identification should come as no surprise: the proposition 'p' has as its truth condition *that p*. Before moving forward with it, however, we should note that it is not uncontroversial.

It has been an orthodoxy that the *Tractatus* offers a correspondence theory of truth: the *Tractatus* holds, it has been supposed, that the obtaining of a truth condition consists, at least in the basic case, in the existence of a situation. The identification of a situation with a truth condition clearly stands against this orthodoxy – indeed it stands against any theory in which the obtaining of a truth condition is explained by reference to some further fact-item. Now there are certainly passages in the *Tractatus* that *suggest* a correspondence theory. Wittgenstein writes, for example:

> If an elementary proposition is true, the atomic fact exists: if an elementary proposition is false, the atomic fact does not exist. (4.25)

Whilst suggestive, however, such passages are far from decisive against an identification of Tractarian situations and truth conditions. For one, whenever Wittgenstein wants to emphasise that something is a fact, he invariably deploys the idiom of 'that p'. So for instance we find:

> A propositional sign is a fact. (TLP 3.14)…
> Not: "The complex sign 'aRb' says 'a stands in relation R to b'; but rather: "*That* 'a' stands in a certain relation to 'b' says *that* aRb. (TLP 3.1432)

More, Wittgenstein's talk of fact existence can readily be given a deflationary reading. A truth condition – that p – is a way things may be: it may be that p. Given an identification of truth conditions with facts, then, to say that a certain fact exists will be to say that a certain way things may be exists, and this will mean nothing more than that things are indeed that way. As Ramsey wrote: "'The fact that a has R to b exists' is no

different from 'a has R to b'" (Ramsey 1990 p39). The relevant point here is that more substantial support is required for attributing a correspondence theory to the *Tractatus* than merely pointing to sections in which Wittgenstein talks of the existence of a situation. I want now to defend my identification of fact and truth condition by suggesting that such support simply isn't there. Attending more closely to, thinking harder about, Wittgenstein's theorising reveals that the Tractarian system doesn't provide for thinking of the obtaining of a truth condition in terms of distinct fact-items.

There are, I take it, two places where one might look to substantiate a conception of situations other than as truth conditions: one might look either at how situations interrelate or at how they are represented. Russell's work over the period 1910-1913 provides an illustration of the first of these two possibilities. Russell holds at this time that the obtaining of a truth condition consists in the existence of a corresponding fact, and this Russellian claim draws for its substance on a theoretical context in which facts are themselves constituents as objects of further facts. For example, the fact "knife-to-the-left-of-book" – the fact in whose existence is constituted the knife's being to the left of the book – is for Russell a constituent, along with Jack and the relation of perceiving, of the further fact "Jack-perceiving-(knife-to-the-left-of-book)", this latter complex again existing just in case Jack enjoys the relevant perception. Wittgenstein, we can however straightaway note, emphatically rules out thinking in this way of facts as objects, and so not as truth conditions. He both vigorously disassociates facts from objects and insists that objects are simple. A fact is not a constituent, as an object, of further facts. One might still wonder, of course, whether Wittgenstein doesn't hold there to be a different system of relations amongst Tractarian situations which could substantiate distinguishing them from truth conditions. Looking around for such relations, however, what one finds is Wittgenstein speaking of a relation between senses of *opposition*: "the propositions 'p' and '~p'," Wittgenstein writes, "have opposite sense" (TLP 4.0621). And far from distinguishing senses and truth conditions, this strongly supports their identification. (Someone who wants to maintain that situations are not truth conditions will, I take it, have to respond here with an improbable distinction between situations and senses.)

Putting this last comment to one side, let's consider Wittgenstein's account of situation representation. If one wanted to distinguish facts from truth conditions, a second place to do this would be within one's theory of representation. In particular, the likely suggestion to make would be that a token proposition has a truth condition by virtue of picking out a fact. A proposition first picks out a fact; subsequently it does something like 'affirm the fact', coming thereby to have the relevant truth condition. On such a theory, a fact would be the object of a 'picking out' relation, and – depending on how the affirmation part of the theory is understood – the door would be open for explaining the obtaining of a truth condition in terms of the existence (or something similar) of such an object. Certain commentators have, I think, understood the *Tractatus* as proposing just such a two-step theory of the proposition. First, a proposition picks out a fact – it *depicts* or *images* a fact in a way which does not presume that fact's existence. Subsequently, the proposition affirms the picked out fact. This two-step picture of judgment is, however, wholly and conspicuously absent from Wittgenstein's central statement of his account:

> In the picture the elements of the picture are the representatives of objects. (2.131)
> A picture is a fact.
> That the elements of the picture are combined with one another in a definite way, represents that the things are so combined with one another. (TLP 2.141-2.15)

A proposition's having a certain truth condition – its representing *that something is the case* – is explained *directly* in terms of its elements referring to objects; it is not explained via the proposition as a whole imaging some non-truth-condition fact-item.

Nothing in Wittgenstein's theorising, I would therefore press, provides for interpreting those points at which he talks of fact existence as the expression of a correspondence theory, or indeed of any theory in which facts are distinguished from truth conditions. Nothing in the *Tractatus* provides for thinking of the sentence 'The fact 'aRb' exists' as anything other than a periphrasis of the sentence 'aRb'.[8]

7.

We can move on now from Wittgenstein's claim that assertion is psychological and look towards his second claim against Russell, that "in *not-p*, *p* is exactly the same as if it stands alone". This remark targets Russell's assertion that "the *p* and the *q* which enter into [the proposition "*p* implies *q*"] are not strictly the same as the *p* or the *q* which are separate propositions." (PoM p35) But what exactly is its content?

An obvious suggestion is that Wittgenstein means, straightforwardly, that there is only one proposition 'p' and this proposition does indeed occur in the propositions 'not-p', 'p implies q' etc.. So where Russell argues (more or less):

(1)   'p' asserts that p.
(2)   What occurs strictly within a proposition does not assert anything. Therefore,
(C)   'p' does not occur within 'p implies q', 'not-p' etc.

Wittgenstein responds by denying (C), agreeing with (2) and so denying (1). Assertion does not belong to the proposition: it is merely psychological. We need to be careful here, however. In particular, it may be unclear what notion of a proposition Wittgenstein is deploying, and so how we should be looking for his remarks to engage Russell.

Let's continue for now thinking of a proposition as a type whose tokens have in common a certain sense. For such a proposition to occur within another is for a sense to occur within another. So, do Tractarian senses occur within each other? We mentioned above that a sense is not a possible constituent as an object of another sense. Senses are not complex objects; they do not stand to each other in part-whole relations. This does not entail, however, that there is *no* structuring of containment amongst senses. Indeed, the surface of the *Tractatus* would seem to hold that there is. On its surface, the *Tractatus* divides situations into simple and complex, a simple situation being that certain objects are combined in a certain way and a complex situation being composed of such simple situations. If that p is simple, then that not-p is an essentially negative possibility involving the possibility that p: it is the possibility that the basic possibility that p does not obtain. The possibility that p or q is a disjunctive possibility composed of the possibilities that p and that q: it is, essentially and exhaustively, the possibility that one or other of these basic, logically simple possibilities obtains.

It will be correct to think of Tractarian senses as occurring within each other in this way if, and only if, Wittgenstein holds there to be essentially simple, and so essentially negative, disjunctive etc. situations. And whilst the opening remarks of the *Tractatus* appear to commit Wittgenstein to such a categorisation of situations, certain other remarks by Wittgenstein may appear to find him rejecting it. For instance, Wittgenstein writes in the *Notes on Logic*:

> In "not-not-p", "not-p" does not occur; for "not-not-p" is the same as "p", and therefore, if "not-p" occurred in "not-not-p", it would occur in "p". (NB p99)

On closer inspection, however, this passage can be seen to be inconclusive on the point in question. The obvious argument to find within it is that if we both allow that propositions occur within each other, and accept at face value the suggestions for such occurrences of token propositions, then we will arrive at the absurd conclusion that every proposition occurs in its negation. It is not obvious, however, whether Wittgenstein takes the lesson to be that propositions do not occur within each other, or that we should be wary of naively reading such occurrences from the surface of token propositions. A very similar remark in the *Tractatus* is similarly inconclusive:

> That negation occurs in a proposition, is not enough to characterise its sense. ($\sim\sim p = p$). (TLP 4.0621)[9]

One can agree with Wittgenstein that '$\sim\sim p$' and 'p' ('p or q' and '$\sim(\sim p$ and $\sim q)$' etc.) express the same sense, endorse the lesson that the occurrence of a logical sign such as '$\sim$', 'and' or 'or' in a proposition is insufficient to characterise its sense, but maintain nonetheless that there are elementary, negative and disjunctive senses.

What, though, of the claim against Russell that "[i]n *not-p*, *p* is exactly the same as if it stands alone" (NB p95)? Does this not commit Wittgenstein to the occurrence of senses within each other? Where Russell had held that the proposition (/sense) 'p' occurring in the proposition 'not-p' is distinct from the separate proposition 'p', Wittgenstein insists that they are identical. What occurs in the situation that not-p is not some unasserted or otherwise distinct version of the situation that p: it is precisely the situation that p. Again, though, this reading is not compulsory – not even if we agree that Wittgenstein is talking here of senses. For there is the option of understanding Wittgenstein's remark as nothing more than a pressing of a version of the concern that Russell has undermined *modus ponens*. Russell's claim that in the argument 'p; p implies q; therefore q' the 'p' that is the first premise is a different entity from the 'p' that appears within the second premise threatens to be the claim that what the sentence 'p implies q' says implies q is not what the sentence 'p' says, and so threatens to entail that the argument is invalid. Similarly, Wittgenstein may be understanding the Russellian claim that 'p' is a different entity as it stands by itself from when it appears in 'not-p' as the claim that what the sentence 'not-p' says is not the case is not what the sentence 'p' says (that these two senses are not opposites), and his response may simply be a forthright rejection of this error.

We can consider what is at issue in the question of whether or not senses occur within each other by imagining a language in which there are two types of names {A, B, C, …} and {a, b, c, …}, elementary propositions consisting of one name of each type. Suppose someone were to criticise this language saying that the symbol 'A' is not in fact a name; 'aA', 'bA' etc. are not in fact elementary. Rather, 'aA', 'bA' etc. express negative senses and 'A' should be replaced by a real name 'X' rewriting 'aA', 'bA' etc. as '$\sim aX$', '$\sim bX$' etc.. Would Wittgenstein see it as a substantial issue whether 'X' or 'A' is the real name? If one answers 'no' to this question, one will hold that being elementary, negative, disjunctive etc. are characteristics of token propositions only and not of senses. A positive answer will endorse the *Tractatus*' surface claim that these are characteristics also of senses. Which answer one should give is not, it however seems clear, decidable by looking in the way we have tried at a few isolated passages of Wittgenstein's writings.[10] Rather, the answer one gives will depend largely on the kind of reading one is inclined to give to the *Tractatus* as a whole. Speaking very broadly, someone who sees the book as

offering a realist metaphysic of language independent objects will likely insist that there are indeed essentially elementary, negative etc. senses, whilst someone who does not find such a metaphysic may rather take it that senses are not essentially characterised in such ways. This being so, there is not space to pursue the question further in this paper. To move on towards the paper's end I want rather to consider a third option for interpreting Wittgenstein's claim that "[i]n *not-p*, *p* is exactly the same as if it stands alone" (NB p95). Perhaps Wittgenstein is concerned here not with senses by with *linguistic symbols*. Even if Wittgenstein denies that senses are built out of each other, he might nonetheless hold that propositional symbols (roughly, sentences) are built out of each other. Indeed, this is something Wittgenstein would seem to accept (see, e.g., TLP 5.5151). So perhaps Wittgenstein is reading Russell as claiming that the propositional symbol 'p' does not occur within the propositional symbol '~p', and reacting with a rejection that claim.

8.
Wittgenstein writes in the *Tractatus*:

> In the general propositional form propositions occur in other propositions only as bases of truth-operations. (TLP 5.54)

Earlier, he introduces the idea of a (truth-) operation as follows:

> The structures of propositions stand to one another in internal relations.
> We can bring out these internal relations in our manner of expression, by presenting a proposition as the result of an operation which produces it from other propositions (the bases of the operation). (TLP 5.2-5.23)

> Negation, logical addition, logical multiplication, etc. etc. are operations.
> (Negation reverses the sense of a proposition). (TLP 5.2341)

> What the bases of an operation and its result have in common is just the bases themselves. (TLP 5.24)

Truth conditions stand in internal relations to each other. Two truth conditions may for example be opposites – for things to be the one way may be for them not to be the other. Such relations between senses can be brought out in our manner of expression. If 'p' and 'q' are propositions of opposite sense, we can 'bring this out' by writing 'q' as 'not-p'. Again, if 'r', 's' and 't' are propositions such that for things to be as 't' says is for them to be either as 'r' says or as 's' says, this can be brought out by writing 't' as 'r or s'. And in doing this, Wittgenstein says, we present 't' as the result of an operation which produces it from 'r' and 's'.

One might on reading these remarks take an operation to be a function of a certain kind from n-tuples of senses to senses. Negation maps a sense to its opposite; logical addition (disjunction) takes two argument senses and delivers the sense such that for things to be that way is for them to be either the way of the first argument or the way of the second argument. In writing 't' as 'r or s', the thought would then be, we present the sense of 't' as the result of an operation of disjunction on the senses of 'r' and 's', much as the Fregean expression '2+3' represents the number 5 as the result of combining addition and the numbers 2 and 3 as function and arguments. This understanding of an operation is, however, inconsistent with the idea, apparently endorsed by Wittgenstein in both section 5.24 and section 5.54, that the result of an

operation *contains* its bases. On the current interpretation, an operation's bases will be its arguments, but even if one holds that certain senses are contained in certain others, not every way of representing a situation as the result of an operation could reflect structuring of containment in the realm of sense. (In particular, not every sense can contain its opposite: if that p is contained in that not-p, then that not-p is not contained in that p.)

The alternative to thinking of operations as functions on senses is to see them as a part of the symbolism. At various points in the *Tractatus* Wittgenstein appears to speak of propositions not as Ramsey defines them, namely as a type whose tokens have in common a certain sense, but more narrowly as a propositional symbol of a particular language – as, more or less, a sentence. (Similarly he speaks of a name not as a type whose tokens have in common a certain meaning, but as a type whose tokens belong to the same language and have in common not only a certain meaning but also a certain sign. (So there might be two names for the same object.)) If we take the bases and results of operations to be propositions in this sense, then we can think of an operation '( ) or ( )' of disjunction as a linguistic rule for the construction of propositions of a certain language which takes propositional symbols 'p' and 'q' and produces from them a propositional symbol 'p or q' whose sense obtains just in case either of the senses of the two bases obtain. There might in the same language be a rule of proposition construction which, given a propositional symbol 'p', provides for the construction of the symbol '~p' with a sense opposed to that of 'p'.

No problem arises on such an understanding of an operation that every proposition contains its negation. The propositional symbol '~p' is the result of applying the operation of negation to the basis symbol 'p', and so '~p' contains 'p'. '~~p' similarly contains '~p'. But 'p' does not contain '~p', for '~~p' and 'p' are different propositional symbols despite having the same sense, and so being the same proposition in Ramsey's sense. In the same vein, whilst the truth values of 'p or q' and '~(~p and ~q)' are determined in the same way by those of 'p' and 'q', they are not the result of the same operations on 'p' and 'q'. Indeed, there is no single operation '~(~( ) and ~( ))' – the propositional symbol '~(~p and ~q)' is the result not of one operation on the bases 'p' and 'q' but of successive operations on those propositions first separately and then together.

This said, it remains to be clarified what it would be for one propositional symbol to occur within another. To close the paper we may say something very brief to this point. Consider again the Fregean symbol '2+3'. This is a name of the number 5 in which the names '2', '3' and '( )+( )' occur. It is a distinct name from the name '5', and the occurrence within it of '2', '3' and '( )+( )' finds no reflection at the level of what is referred to: the numbers 2 and 3 and the addition function do not in any sense occur within the number 5. As to the precise way in which the name '2' occurs in '2+3', this is a question for Frege scholarship. It is both necessary and sufficient for there to be *some* way in which '2' occurs within '2+3', however, that wherever '2+3' is tokened there too is tokened '2', and so there too the number 2 is referred to. In the same way, it is necessary and sufficient for the symbol 'p' to be said to occur within the symbol '~p', that where '~p' is tokened, there too is tokened 'p', and so there too it is said that p. And in this way, I would suggest, Wittgenstein does indeed hold – without implying relations of containment at the level of sense – that 'p' occurs within '~p'. One might react to this suggestion by saying that nothing occurring strictly within a proposition says anything. Such a reaction, Wittgenstein would however hold, confuses saying with assertion. Whilst it is true that assertoric force does not belong to propositions as they are tokened strictly within other propositions, Tractarian saying is not assertoric force. Rather, such saying is the representation of a situation, and whilst this is absolutely no

kind of reference, there is no more problem for Wittgenstein with the idea that what occurs strictly within the representation of a situation might itself represent a situation than there is for Frege with the idea that what occurs strictly within a referring expression might itself refer. The diagram concerning Jack's pets says something when it occurs with interrogative force; it would equally well say something if were to occur with a '~' sign in front of it, the wider diagram there occurring having the opposite sense to the diagram occurring within it.

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[1] Russell refers here to Lewis Carroll's "What the Tortoise Said to Achilles" (Carroll 1895), arguing that if modus pones is not distinguished, it will be supposed that '(p and (p implies q)) implies q' is necessary for asserting 'q' on the basis of 'p' and 'p implies q', and then on reflection that '(p and (p implies q) and ((p and (p implies q)) implies q)) implies q' is also necessary for asserting 'q', and so on. One will "be led into an endless regress of more and more complicated implications, without ever arriving at the assertion of *q*" (PoM p34).

[2] Russell writes that his principle of *modus ponens* "is employed whenever a proposition is said to be *proved*" (PoM p34).

[3] Russell talks of "the sentence expressing the proposition" (PoM p42) and writes that "[a] proposition, unless it happens to be linguistic, does not itself contain words: it contains the entities indicated by words. (PoM p47)

[4] That Frege's sign '⊢' is composite, and that it is only its vertical component that 'conveys assertoric force', will not be of concern in this paper. (The principal role of the horizontal component as such is to prevent the appearance of assertoric force belonging to a token of what does not express a thought (e.g. the symbol '2²'). '—p' expresses a thought even if 'p' does not.)

[5] Russell is, in his own terms, too easily taking "a grammatical distinction … to correspond to a genuine philosophical difference" (PoM p42).

[6] On the contrary the *Tractatus* makes clear that the correlation of name and meaning is a matter of public convention (see TLP 5.526). I agree here with Potter:

> It is clear that Wittgenstein did not, as Frege did, intend the word 'psychology' to demarcate the mental as a private sphere in contrast to the public sphere of language. For, as we have just noted, he was explicit that the correlation of name and meaning is psychological, and that is a matter of linguistic convention if anything is. For this reason we can, I think, agree with Wittgenstein's claim that 'assertion is psychological', by which he meant only that it is not a matter for logic, without disagreeing with the conclusion we reached earlier that assertion is not in Frege's sense psychological, since it is not private. (Potter 2009 p100)

Dummett by contrast misinterprets Wittgenstein's use of the word 'psychological', assimilating it to Frege's:

> Wittgenstein goes even further, and ways that 'assertion is merely psychological' … This supposed 'psychological' kind of assertion which appears in Russell and Wittgenstein is a phantasm produced by the mistake of interpreting assertion as the manifestation of an internal mental attitude adopted towards the proposition. (Dummett 1981 p312)

[7] Wittgenstein is not here, I think, distinguishing judgment from assertion.

[8] See Ramsey 1990 p39.

[9] Ogden translates TLP 4.0621 as "That negation occurs in a proposition, is no characteristic of its sense. (~~p = p)." This simply ignores, however, the 'noch' in Wittgenstein's 'ist noch kein Merkmal seines Sinnes'. Pears and McGuinness more closely follow Wittgenstein's German.

[10] Geach (2006) appears to think otherwise; in particular he appears to take TLP 4.0621 as straightforwardly decisive against essentially negative senses.