In what Way does Logic involve Necessity?

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That logic has something to do with necessity is one of the longest-running ideas in the history of philosophy. According to Aristotle, in a syllogism “something … results of necessity”¹ from “certain things” “being so.”² On the other side of the historical spectrum, we are nowadays often told of how Kripke discovered that there is metaphysical, in addition to logical, necessity; a claim that obviously presupposes that logic is connected with necessity. Does the Tractatus agree with this tradition? That’s the question I want to think about today. For me this question is connected with another. The Tractatus undeniably criticizes of Frege’s and Russell’s views of logic. Are these criticisms connected with its stance on logic and necessity?

I will approach these questions by considering two of the main opponents in the recent debate over “resolute” approaches to the Tractatus. On one side, Peter Hacker answers both questions positively. He takes one of Wittgenstein’s main criticisms of Frege and Russell to be that they don’t have a coherent explanation of the necessity of logic. And he holds that “the most significant achievement of the Tractatus” is “its account of logical necessity,” an account that overcomes the incoherence of the Frege-Russell view.³ On the other side, Cora Diamond seems to answer my first question negatively. She takes 6.37, “There is only logical necessity,”⁴ to be “ironically self-destructive,” since “[i]n so far as we grasp what Wittgenstein aims at, … we shall not imagine necessities as states of affairs at all. We throw away the sentences about necessity; they really are, at the end, entirely empty.”⁵ I’m not sure whether she ever discusses the second question directly, though perhaps a case can be made for a positive answer on her behalf.

Let me explain why I’m so uncertain about Diamond’s views here, for this will enable me to indicate where I’ll be heading with my questions. Hacker also has qualms about 6.37. He writes, “it is misleading … to say that all necessity is logical necessity, since after all most of the propositions of the Tractatus itself seem to state … metaphysical necessities about the nature and essence of reality, of any possible world.”⁶ So Hacker thinks that Wittgenstein, at bottom, agrees with Kripke, although since Tractarian metaphysical necessity is “ineffable,”⁷ Wittgenstein can’t say that he does. It is of course a centerpiece of Diamond’s resolute approach precisely to reject Hacker’s ineffable Tractarian necessities. But note that these ineffable necessities are metaphysical. What about the necessity of logic? On this issue it’s not clear to me how Diamond’s account of tautology in “Throwing Away the Ladder” differs from Hacker’s account. Much of the following is my attempt to get clearer about this. I don’t, I’m afraid, have any confidence in having achieved much clarity. But I did come to entertain a hypothesis, that Diamond, and perhaps resolute approaches in general, can make room for a distinction between metaphysical and logical necessity, in terms of what is involved in our overcoming our philosophical attachments to the
expressions that seem to embody these concepts. This is sort of a response to the first question. I will, alas, have even less to say in the end about the second question.

Hacker’s writings suggest that he regards Frege and Russell as, at best, philosophical village idiots with more or less indistinguishable views. In the case of logic, they painted themselves into a corner with two commitments. First, the “apodeictic status” of “laws of logic” “was clear enough” to them, in the sense that for them the propositions of logic are true in a special way, true “come what may, under all conditions.” But, second, they took the propositions of logic to have “a subject-matter,” namely, “the most general features of the world” or “the properties and relations of logical objects or constants.” In order to render these two commitments consistent, they made the subject matter of logic into a special, necessary, kind of facts: the maximally general features of the world cannot fail to be a part of any possible world, logical objects have the properties they have and stand in the relations they do, no matter how else the world might be.

But through this maneuver “neither Frege nor Russell could coherently explain” “what gives [logical laws] their necessitarian status.” The reason is that, by giving logical propositions a subject matter, they “bargained away the necessity of such propositions (since completely general propositions may nevertheless be only accidentally valid).” So far as I can tell, the parenthetical remark I just quoted is the only explanation Hacker ever gives for the incoherence of the Frege-Russell account of logical necessity. A contrast between accidental and essential of course figures prominently in the Tractatus remarks on logic. It seems that for Hacker what the contrast amounts to is obvious, perhaps because he takes it as obvious that facts, however general, remain what happens to be the case in the world, since we can always conceive of the world as consisting of a different set of facts. If all facts are contingent, no type of facts can ground the necessity of any truth. Hence Frege-Russell account of logical necessity is patently inadequate.

Wittgenstein’s alternative account of logical necessity rests on characterizing the propositions of logic as tautologies. Hacker’s explanation of tautology is well-known. Its basis is “the essential nature of representation.” All propositions are uniquely analyzable into logically independent elementary “propositional-sign[s].” Each of these “is essentially a description of a (possible) state of affairs. If the state of affairs described obtains, the proposition is true, otherwise it is false.” So “[t]ruth and falsity … are essential properties of” elementary propositions. Moreover, these propositions are “bipolar, i.e. capable of being true and capable of being false (so there are no necessary truths or necessary falsehoods among elementary propositions).” A non-elementary proposition represents by agreeing or disagreeing with each truth-possibility of the elementary propositions into which it is analyzed. If any of the truth possibilities with which it agrees obtains, it’s true; if any truth possibility with which it disagrees obtains it’s false. Thus propositions in general are also essentially either true or false. But they are not essentially bipolar. For it follows from the nature of non-elementary propositional representation that there have to be non-elementary propositions, tautologies, which agree with every truth-possibility, and
others, contradictions, which disagree with every truth-possibility. A tautology is thus “true … under all conditions,” i.e., a necessary truth. But this failure of bipolarity means that a tautology “has no truth-conditions,” and is not a genuine proposition describing possible states of affairs, but rather a “limiting” or “degenerate” proposition which “describe nothing.”

Somewhat surprisingly, Hacker never spells out explicitly why this account of logical necessity overcomes the incoherence of the Frege-Russell account. Presumably the reason is precisely the combination of necessity and emptiness of tautologies. The requirements for a tautology to be true are invariably fulfilled, fulfilled in all possible worlds, so even though a tautology has no truth conditions, it is true in the special kind of way demanded by logic. But the reason why it is true in this special way is not because it describes a special type of invariably obtaining situations. It is, rather, because of the way in which the truth-values of non-elementary propositions are determined by the possible truth-values of elementary propositions. Thus, it is the nature of linguistic representation, rather than features of the world or of all possible worlds, that makes tautologies true. So the explanation of the necessity of tautologies does not run afoul of the thesis that any worldly fact or state of affairs is contingent.

I want now to dwell briefly on an issue not directly connected to my questions, namely, Hacker’s interpretation of Frege’s and Russell’s views of the relation between modality and logic. Let me begin with Russell. In an (admittedly) unpublished paper, “Necessity and Possibility,” Russell writes, “the subject of modality ought to be banished from logic.” The reason he is that “there is no such comparative and superlative of truth as is implied by the notions of contingency and necessity,” a reason echoed in Principles of Mathematics: “there seems to be no true proposition of which there is any sense in saying that it might have been false. …. What is true, is true; what is false, is false; and concerning fundamentals, there is nothing more to be said.” This doesn’t quite have the ring of a commitment to logic having a special, necessary, mode of truth.

Now of course one might think that Russell held this anti-modal view only around the time of Principles, since, in Introduction to Mathematical Philosophy, he writes, “[p]ure logic aims at being true, in Leibnizian phraseology, in all possible worlds.” Russell certainly did change his mind on a number of issues, but I don’t think the relation of logic and modality is one of them. In the very paper in which Russell urges banishing modality from logic, he also offers four accounts of necessity in terms of notions of logic. For example, a proposition is necessary if it can be deduced from the axioms of logic. So, I think that Russell would take the remark about logic and possible worlds in his prison document to be explicable, ultimately, in terms of one of his reconstructions of the notion of possibility.

Frege is not quite so strident as Russell about banishing modality, but he does insist in Begriffsschrift §4 that his notion of conceptual content does not distinguish between the traditional notions of apodictic and assertoric judgments. Moreover, in the same way as Russell, Frege outlines accounts of traditional modal judgments in logical terms. For example, a judgment in apodictic form merely “suggests the existence of universal judgments from which [it] can be inferred,” so in characterizing a proposition as
necessary one gives “a hint about the grounds for” one’s judgment. Perhaps this allows something like a standard for assessing the correctness of an apodictic judgment: it is correct just in case there indeed exist universal judgments from which the proposition claimed to be necessary follows. If so, then perhaps Frege would allow that it’s correct to characterize particular instances of his basic logical laws, all of which are universal judgments, as well as theorems derived from these laws, as necessary.

The upshot is that Russell and Frege took logic to be philosophically fundamental, and to have no need for modal notions: the laws of logic need not be stated using modal expressions, nor does the nature of logic involve modal concepts. But, they were not, to put it in contemporary parlance, wholesale eliminativists about modality notions. Rather, they were modal reductionists, willing to countenance modality to the extent that it is explicable in terms of the concepts of logic.

Obviously Hacker’s misreading of Frege and Russell doesn’t invalidate his account the Tractatus, since Wittgenstein may have shared that misunderstanding, and developed his view of logic on its basis. I won’t go any further into these interpretive issues, but I do want to indicate, before getting back to my questions, that it’s not insane to regard logic as not intrinsically necessary. A view of logic as completely general truths on the basis of which modal notions are explicable is in some ways more robust than a view of logic as intrinsically modal. For example, consider the following argument against the coherence of the very idea of logical laws. Logical laws have to be necessarily true, but what is necessary truth? Surely it means that it is not conceivable for these laws to be false. But surely we understand the propositions stating these logical laws. So we must understand their negations as well. But then how could the falsity of these propositions not be conceivable? The argument would not go through if inconceivability is taken to be explained in more fundamental logical terms, for instance, a proposition $p$ is inconceivable if a contradiction is deducible from it. Of course an inconceivable proposition, on this explanation, is one we might think we can understand and even believe, but what’s the problem with that? We, or some of us at any rate, are the “folk,” and our notions of conceivable are vague and imprecise.

I come now, as promised, to “Throwing away the Ladder.” Diamond begins her discussion of necessity in section III by saying that Wittgenstein consistently opposes conceptions of “necessity imaged as fact”, as what is “the case,” albeit in all possible worlds. That the ineffable metaphysical necessities Hacker finds in the Tractatus are imaged as facts is beyond question, since Hacker himself declares them to be “every bit as brutish as brute empirical facts.” Now, when Diamond turns to logic she begins by sketching a view of logic Wittgenstein rejects, in which the necessity of logic is factual: “[i]t is overwhelmingly natural to say … that, if we fix the meaning of the sentential connectives, … then a sentence of the form ‘p or not p’ … has truth conditions which are in all possible circumstances fulfilled.” Wittgenstein’s contrasting view is that there is a rule determining the logical features of the comparison with reality of … genuine sentences formed from genuine sentences. That fundamental rule will really be the meaning, all rolled up into one, as it were, of all the logical constants. And if we grasp that, we shall not be tempted to think of tautologies and contradictions as saying that something or other is the case. We shall not
be tempted really to think of them as sentences. This fundamental rule requires elementary propositions and the operation N, “a method of construction of sentences from sentences.” There is no explanation of the fundamental rule in this paper, but one obvious view is that it applies to the outputs of the method of construction, specifying how they are to be compared with reality in terms of agreement and disagreement with the truth possibilities of those elementary propositions that occur in their constructional history. Applied to certain outputs of the method, tautologies, the rule, by itself, implies that these “sentence-like constructions” are true; applied to others, contradictions, it implies that they are false. They are not “genuine sentences” because their truth-values are not the results of “comparison to reality.”

Diamond goes on to say that “[l]ogical necessity is that of tautologies”:

It is not that they are true because their truth conditions are met in all possible worlds, but because they have none. ‘True in all possible worlds’ does not describe one special case of truth conditions being met but specifies the logical character of certain sentence-like constructions formulable from sentences.

Does logical necessity then consist in the “logical character” of tautologies? If so, is this conception of logical necessity an image of necessity as fact?

There are four main parallels to Hacker’s account. First, what Diamond calls “genuine sentences” and Hacker “non-degenerate propositions” require, for their truth, comparison with reality. Call these ordinary propositions. Second, Wittgenstein rejects the idea that logic, just like ordinary propositions, require comparison with reality for truth, and the idea that the necessity of logic consists of successful comparison with, not just actual but all possible, realities. So, third, the tautologies of logic are not ordinary propositions but proposition-like sequences of words with the property that the rule specifying the requirements for non-elementary propositions to be true, by itself, implies that these requirements are met for them, without comparison with reality. Finally, this “logical character” of tautologies constitutes their necessity. Given these parallels, it’s not clear why and how, if we stop “imagining necessities as states of affairs,” we should reach the apparently unqualified conclusion that “sentences about necessity are entirely empty.”

In order to think about this, I want to consider whether the account of logical necessity in terms of tautology really does overcome the purported incoherence of Fregean-Russellian logical necessity. The account rests on a general rule for the truth-value determination of non-elementary propositions. From a Fregean, if not exactly Frege’s, perspective, one can take this to be a (semantic) theory of non-elementary propositions: they express functions from truth-possibilities of elementary propositions to truth-values. Hacker, I take it, would say that there is still a fundamental difference between such a Fregean view and Wittgenstein’s account: the Fregean would take these functions to be part of the reality described by non-elementary propositions, while Wittgenstein holds that the sum total of reality is exhaustively described by elementary propositions, so that the function is not part of the reality described but merely fixes a non-elementary way of describing that same reality. But why should we think that this difference is more than
terminological? After all, whether or not the functions are part of the reality described, they play a role in fixing the truth requirements of the propositions in question. This suggests that the significance of being a part of the reality described lies in Hacker’s assumption that whatever is described by an ordinary proposition is contingent. So Hacker must hold that it is not contingent, not a mere fact about language, that a proposition is a function from truth-possibilities of elementary propositions to truth-values. Is it then a metaphysical necessity about the nature and essence of language? If so, is it at bottom any different from the ineffable metaphysical necessities that Hacker takes to be “as brutish as brute empirical facts”? If the necessities of language are in the same boat, then they are, indeed, imagined as brute empirical facts. And so the Tractarian account of the truth of tautologies would be, at bottom, no less able to ward off contingency than Hacker’s Frege-Russell view.

I doubt that the problem just outlined underlies the step beyond Frege and Russell to modal eliminativism that Diamond seems to discern in the *Tractatus*. To begin with, there is a line of thinking that can be pressed into such eliminativist service in a later paper, “Truth before Tarski.” I have in mind an aspect of Diamond’s account of Wittgenstein’s criticism of Frege. Wittgenstein shares a fundamental aspect of Frege’s views, as interpreted by Thomas Ricketts and Warren Goldfarb: philosophical accounts of logic are answerable to “what is present in ordinary informative discourse.” Such accounts seek to “articulate” or “ redescribe” the grasp of inferential relations involved in informative discourse. The patterns of inference thus discerned are the bases for identifying “parts and features of statements as logically functioning units.” Moreover, this logical articulation is the basis for (apparent) ontological categories.

Frege and Wittgenstein differ in the inferential patterns they articulate. Frege focuses on quantificational patterns of instantiation and generalization, by means of which he isolates names and quantifiers as parts of statements, as well as inferences of identity, by which he characterizes proper, as opposed to function, names. Frege’s ontological categories are supervenient on these logical categories: there is no more to being an object than to be the referent of a proper name, no more to being a concept than to be the referent of a concept expression.

Wittgenstein, in contrast, focuses on inferential patterns by means of which to isolate what counts logically as propositions or statements, in contrast to names. These are the patterns of Geach’s logic of duality. Whatever counts, logically, as a proposition must satisfy the condition that one could use it to say the contradictory opposite of what it says. So for every language L there exists a dual language L\(_D\), with the same vocabulary and syntax, such that each sentence of L\(_D\) “equiviform” with a sentence of L says the contradictory opposite of that sentence of L. The logical distinction between proposition and name is based on features of a compositional translation from sentences of L to their duals in L\(_D\) that preserves what is said. In such a translation L sentences go over to their negations, negations go over to the subsentence negated, conjunctions to disjunctions, etc. But names go over to themselves; names are self-dual. So the logical criterion of propositionhood is non-self-duality.
This shared approach to ontology and logical articulation leads to phenomena like that involved in Frege’s view of such definite descriptions as ‘the concept horse’. Since this expression occurs in patterns of inference which isolates it as a proper name, its referent is an object, not a concept. In the case of Wittgenstein, if a sentence occurs in another sentence, but is self-dual in that occurrence, then in that occurrence it is not logically a proposition, and does not depict any state of affairs. There is one type of occurrence which Diamond specifically claims to fail this logical criterion of propositionhood. In those of Wittgenstein’s sentences that appear to describe propositions standing in various relations to reality, to possible states of affairs, the supposedly described propositions occur in the logical places of names, flanking relation expressions, and so do not function as propositions.

From this we seem to be able to draw two conclusions. First, consider a sentence I uttered earlier:

Non-elementary propositions are compared with reality by agreeing or disagreeing with truth-possibilities of elementary propositions.

This looks like a generalization over propositions, but what seems to be a bound variable in it can’t be instantiated with expressions that actually function logically as sentences. Thus, we only seem to have given all the parts of such sentences a meaning; they are in fact nonsensical. It follows that there only seems to be an account of truth-value determination underlying the logical character of tautology.

Second, we might think that the same problem can be discerned for sentences of the first two degrees of modal involvement. In those sentences a modal predicate is attached to what is grammatically a sentence or a name thereof, so they seem to ascribe properties to propositions, or to the states of affairs they depict. But the embedded sentences do not function logically as propositions.46

It would be hasty, I think, to ascribe this line of argument for modal eliminativism to Diamond. For one thing, not all occurrences of sentences in positions that look like placeholders of relation expressions fail the logical criterion of propositionhood. Diamond argues that in (at least some) propositional attitude contexts sentences occur logically as propositions. Without further investigation of the logic of modal sentences, showing that embedded sentence in modal contexts don’t function logically as do sentences in propositional attitude contexts, we’re not entitled to conclude that modal sentences are nonsense.47

Moreover, even if modal sentences in general fail to express sense, it’s not clear that these failures are uniform. I can get at what I have in mind by looking at 5.525 in juxtaposition with Michael Kremer’s recent account of tautology, an account that has been taken up by Diamond and Jim Conant.48 5.525 is:

"The certainty, possibility, or impossibility of a situation is not expressed by a proposition, but by an expression’s being a tautology, a proposition with a sense, or a contradiction."49 I will, tendentiously, speak of necessity instead of certainty. A first glance at this remark has suggested to many a denial or reduction of ontological in favor of linguistic modality. A second glance suggests that it is, in part at least, “ironically self-destructive.” Tautologies and contradictions picture no situation. So the remark tells us that the necessity of a situation is expressed by a sentence’s being one that pictures no situation. How does this differ from denying that it makes sense for a situation to be necessary?50 But a third glance
at the remark suggests (to me at any rate) another idea. When we try to use a sentence to state, to say, that some situation has the special properties of being necessary or impossible, we can succeed in doing anything at all only if that sentence contains a tautology or a contradiction. The reason comes from Kremer’s interpretation of tautologies as having a use, namely as “records of calculations” that could be carried out as a part of inferring, “and so as guides to [future?] inference.”

I want to connect this idea with necessity, by bringing in an observation of Stanley Cavell’s in “Must we mean what we say?” Cavell notes that “rules for games or ceremonies or languages” are often “statements in the indicative, not the imperative, mood.” He takes this “rule-statement complementarity” to rest on the “fact that [the] topic [of these statements] is actions. When we say how an action is done … what we say may … describe the way we in fact do it … but it may also lay out a way of doing … something which is to be followed.” I suggest that “rule-statement complementarity,” understood in this way, is discernible in tautologies as well. One could take them to be statements, i.e., limiting cases of descriptions with certain special characteristics; but one could also take them as “demonstration[s] of … technique[s]” of inferring. Taken as statements, however, one finds that the supposed account of their special logical characteristics dissolves; moreover, one cannot see of what use they are, since as premises in inferences they could not justify those inferences.

One further point from Cavell. Some indicative statements that function as rules are, as we now like to say, constitutive of the actions in question. In such cases we can express our relation to those rules using the word ‘must’. For instance, taking ‘the Queen moves in straight lines’ as a rule of chess,

I must move the Queen in straight paths …. [I]f I say truly and appropriately, You must …’ then in a perfectly good sense nothing you then do can prove me wrong. You CAN push the little object called the Queen in many ways, as you can lift it or throw it across the room; not all of these will be moving the Queen…. …. Rules tell you what to do when you do the thing at all.

Obviously my idea is that tautologies can be used to express constitutive ways of performing the action of inferring, and that, thought of in this way, they are connected to necessity via the idea that one ‘must’ infer in these ways, if one is to infer at all.

I can now finish up by making explicit how I think of the distinction between logical and metaphysical necessity. There may well be trouble in making sense of any sentence that seems to describe necessary states of affairs, be they in the world or in language. But while what we try to express with some of these sentences points to constitutive ways of operating with informative discourse, with others of these sentences our philosophical aspirations may come, in the end, simply to nothing.
Notes

1 “ἐξ ἀνάγκης συμβαίνει”
2 Prior Analytics 1.2, 24b18-20.
3 Insight and Illusion, 2nd ed. (OUP 1986), hereafter II, 42.
4 „Es gibt nur eine logische Notwendigkeit“
6 II 51.
7 Ibid.
8 II 44.
9 II 47.
10 II 38.
11 One might see, in Russell’s remark in Introduction to Mathematical Philosophy that “[l]ogic is concerned with the real world just as truly as zoology, though with its more abstract and general features” (G. Allen & Unwin, 1919, hereafter IMP, 169), a line of argument from maximal generality to necessary presence in the world. We attain the logical constants by a process of abstracting from specific entities occurring in true propositions. In this way the constants refer to structures present in all worldly facts, no matter what particular entities they involve. So those structures are common to all possible worlds. Since the structure is common to all possible worlds, the conditions for the truth of descriptions of that structure are invariably fulfilled.
12 II 44.
13 II 38.
14 See 2.012, 6.031(2), and 6.1232.
15 Or a different maximally abstract structure. If Hacker is moved by this sort of intuition, he has company. Joseph Almog, for one, holds that since logical truths depict general structural features of the world, they don’t have to be necessary; see, e.g., “Logic and the World,” Journal of Philosophical Logic (1989) 197-220.
16 II 32.
17 Ibid.
18 Ibid.
19 Ibid.
20 II 47.
21 II 51.
22 In The Collected Papers of Bertrand Russell, volume 4: Logical and Philosophical Papers, 1903-05, eds. Alasdair Urquhart and Albert Lewis, (Routledge, 1994), 507-20, (hereafter NP), 520. This is a talk given at Oxford in 1905.
23 Ibid.
24 (CUP, 1903), 454.
25 IMP 192.
26 In more detail, Russell starts by explaining the notion of “analytic proposition” in terms of the relation called “deducibility,” where “q is deducible from p if it can be shown by means of the [axioms of logic] that p implies q” (NP, 515), i.e. if there exists a derivation of the proposition (expressed by) “p implies q” from the axioms of logic.
A proposition is analytic if it is *deducible* from the axioms of logic. Given this account, Russell says, “[i]t is now open to us, if we choose, to say that a necessary proposition is an analytic proposition, and a possible proposition is one of which the contradictory is not analytic” (ibid., 517).

Note that this attitude to modality is consistent with what we find in Russell’s *Theory of Knowledge* manuscript, a work with which Wittgenstein may well have been familiar: “The notion of what is ‘logically possible’ is not an ultimate one, and must be reduced to something that is actual before our analysis can be complete” (111).


28 See *Begriffsschrift* 13.

29 Indeed, someone might take the Wittgenstein’s greatness as a philosopher to be more or less a guarantee that his criticisms of his great predecessors would rest on a misapprehension of their views. (Of course we all know who that someone is: my teacher Burton Dreben.)

30 This seems to be Gordon Baker’s reaction. Unlike Hacker in *II2*, Baker grasped Frege’s modal reductionism but took it to be another reason against the philosophical value of Frege’s thought; see *Wittgenstein, Frege, and the Vienna Circle* (Blackwell, 1988). See also Baker and Hacker, *Frege: Logical Excavations* (Blackwell, 1984).

31 It should be clear that ‘deducible’ here does not express a modal notion. A contradiction is deducible from \( p \) if there exists a proposition of the form ‘\( q \) and not-\( q \)’ such that there exists a derivation of the implication ‘\( p \) implies \( q \) and not-\( q \)’ from the axioms of logic.

32 *TAL* 195.

33 *II2* 51.

34 *TAL* 192.

35 *TAL* 192-3

36 *TAL*, 193. I’m taking a bit of interpretive license here. First, I take Diamond to be referring to elementary propositions when she mentions “sentences [that] can be seen directly to have the … possibility of comparison to reality … which yields true or false … independent of the truth value of any sentence” (ibid.) Second, I take her to be alluding to \( N \) in speaking of a method of construction such that if the base sentences have seeably got the logical characteristic of sentences, the results will be sentences seeably sharing the characteristic or will seeably be merely sentence-like constructions never comparable with reality” (ibid.)

37 *TAL* 193.

38 *TAL* 198.

39 A bit more precisely, from the truth-possibilities of the elementary propositions into which the non-elementary propositions are analyzed, i.e., the power set of the set of those elementary propositions, to truth-values.


42 *TBT*, 257.


45 Although Diamond doesn’t explicitly say so, presumably she would take Wittgenstein’s ontology to be supervenient on logical distinctions as well. Thus, one might take it that there is no more to being an object than to be proxied by a name, no more to being a state of affairs than to be depicted by a proposition.
The argument I have just outlined is different from an argument for Tractarian modal eliminativism suggested in the writings of Goldfarb (MN, 65-6) and Ricketts ("Pictures, Logic, and the Limits of Sense in Wittgenstein's Tractatus," in Sluga and Stern, eds., The Cambridge Companion to Wittgenstein (CUP, 1986), 59-99, at 89-90), call it "the implosion argument." They urge that Tractarian talk of possibilia in the 2's is meant to be incoherent. It seems that the central premise of the reasoning to this incoherence is a (purported) view supposed to be articulated in the Tractatus: the obtaining of a state of affairs is a combining of objects. Given this premise, it doesn't make any sense to think that there is something which is simultaneously a combining of objects and not an obtaining state of affairs. The conclusion to the incoherence of possibilia follows, presumably, because a possible but not actually obtaining state of affairs is a combination of objects that could obtain but does not. So it is both not a combination of objects because not a state of affairs that obtains, and a combination of objects that fails to have the property of actuality. There is no doubt that this is a cogent argument. But it's obvious what a contemporary analytic metaphysician would say about it: the incoherence can be avoided if we simply modified slightly Wittgenstein's conception of the obtaining of a state of affairs to a combination of objects existing in the actual world. A merely possible state of affairs, then, would be a combination of objects existing in non-actual worlds but not in the actual world.

It should be obvious that I am not assuming that there is a coherent notion of a non-actual possible (state of the) world. All I've pointed out so far is that the foregoing argument, call it the "implosion argument," doesn't by itself immediately show that talk of possibilia is incoherent; all it immediately shows is that talk of possibilia in the Tractatus is incoherent. Of course this may be fine for some audiences of the book, for instance, Russell, who never wanted any truck with non-actual beings or worlds. But it does seem to be a problem if the book is aimed at the metaphysical impulses of all philosophical audiences, including contemporary metaphysicians. The implosion argument leaves such a philosopher at least two options. If she is grumpy, she might say, "So much the worse for the Tractatus; it's incoherent alright, fortunately philosophy has progressed and now we have better tools, i.e., possible worlds, to analyze the notion of states of affairs." If she is charitable, she might say, "Why read a great work of philosophy like the Tractatus as presenting such a patently incoherent view? Much better, surely, to take Wittgenstein as, (almost) avant la lettre, employing the apparatus of possible worlds."

I find a similar conclusion about Goldfarb's discussion of another implosion, about the notion of object. The conclusion to be reached is that the string of letters 'A is an object' "collapses as an attempt to say something.... That it does not present a contrast should exhibit itself in a way that makes clear that nothing is being said" (MN, 69). The argument is that there is no way of marking the contrast between objects and configurations

Consider Wittgenstein's characterization "Objects are what is unalterable and subsistent; their configuration is what is changing and unstable" (TLP, 2.0271). Once the notion of "changing" is scrutinized, it becomes clear that configurations don't change—configurations of objects are what we express by what Quine calls eternal sentences. So when we think it through, we see that we have no relevant conception of altering, and hence no contrast between objects and configurations, however suggestive the idea seemed at first. Its suggestiveness, its ordinary use, is what pushes us along in the dialectic when we are trying to follow out the logical implications. (MN, 70)

But here again, as Ian Proops notes ("Wittgenstein on the Substance of the World," European Journal of Philosophy 12 (2004): 106-26, at 111-2) if there is an incoherence it seems removable by using the apparatus of possible worlds and modal variation.

There are two ways in which embedded sentences in such modal contexts appear to function logically as sentences, corresponding to Geach's and Diamond's versions of the logic of duality.

The basis of Geach's argument for taking propositional attitude contexts to contain logically propositional places for sentences is his claim that the dual of a sentence forming operator φ is '¬φ'. Where φ is 'A believes that', if we assume that p is not self-dual in 'A believes that p', we obtain as its dual, 'A does not believe that it's not the case that not-p'. Accepting the elimination of the double negation, we obtain 'A does not believe that p', which is clearly the contradictory in the original language of 'A believes that p' and so its dual. Consider now the case where φ is 'necessarily'. Again assuming that p is not self-dual in 'necessarily p', we obtain as its dual, 'it's not necessary that it's not the case that not-p', i.e., either 'it's not necessary that p' or 'possibly not-p', both of which are clearly duals of the original sentence. An analogous argument works for 'possibly'.

The basis of Diamond's argument is that an attitude ascription such as 'A doubts that p', together with the
premise p, can warrant contradictory conclusions ‘A is right’ and ‘A is wrong’ merely through a difference in how ‘doubts’ is understood, without any (syntactic) change in the sentence p. This is the logical ground for claiming that the occurrence of a sentence in such contexts has the kind of reversibility of comparison definitive of logical propositionhood. There isn’t an obvious parallel with modal contexts. However, it seems that for her the inferential basis for taking a sentence on its own to have reversible directions of comparison with reality are the patterns: “p, [s]o ‘p’ is true and ‘not-p’ is false,” and “not-p, [s]o ‘p’ is false and ‘not-p’ is true” (TBT 259). The question then is why the following patterns do not support the view that in modal contexts sentences are logically propositions:

- p, so ‘possibly p’ is true and ‘necessarily not-p’ is false.
- not-p, so ‘necessarily p’ is false and ‘possibly not-p’ is true.

I have two further questions about the logic of duality. First, do tautologies and contradictions pass or fail the criterion of logical propositionhood?

Second, in the case of Kerry, as Diamond put it, “it is not up to us” to have a language in which concept expressions are not incomplete. In the case of Wittgenstein’s disagreement with Frege, the analogous point is, presumably, that it’s not up to us to have a language in which sentences are not logically distinct from names. Now, what is “not up to us”? In the case of Kerry, the idea is that the validity of certain quantificational forms of inference, the correctness of certain inferences between generalizations and their instances, is not up to us. In the case of Wittgenstein against Frege, the idea is presumably that the validity or correctness of the inferences in the “logic of duality” is not up to us. The same point would have to be worked out for the logic of the intrinsic opposition between sentences and their negations.


49 „Gewißheit, Möglichkeit oder Unmöglichkeit einer Sachlage wird nicht durch einen Satz ausgedrückt, sondern dadurch, dass ein Ausdruck eine Tautologie, ein sinnvoller Satz oder eine Kontradiktion ist.“

50 I’m not sure what the parallel point about possibility amounts to. The possibility of a situation is expressed by a sentence’s being one that pictures a possible situation. Here one is tempted to say that in thinking through the remark one sees that there is no explanation of possibility consists in.

51 Kremer 298. Kremer focuses on tautologies, but an analogous account can be given for contradictions. Indeed, immediately following a key source of Kremer’s reading, 6.1201, where Wittgenstein says, “that … ‘(p=q).(p):Š(q)’ … yield a tautology shows that q follows from pŠq and p,” we find 6.1202, “It is clear that one could achieve the same purpose …”

52 “Must we mean what we say?” in Cavell, Must we mean what we say? (CUP, 1969), 1-42, hereafter MWM.

53 MWM 15.

54 Ibid, emphases mine.

55 Kremer 297.

56 Or at least is hard to keep in focus.

57 This is a point made by Ricketts in “Frege, the Tractatus, and the Logocentric Predicament,” Nous 19 (1985): 3-15. So I think there is more to why “tautologies ‘say nothing!’” than Kremer’s point that “they are strictly speaking unnecessary … for it is always in principle possible to see how to go on in reasoning without them” (298)

58 MWM 28.

59 There’s a connection here with Wittgenstein’s criticism of Frege, I think. In a number of places Frege discusses how laws stating what is the case can be prescriptions for how one ought to think. Frege’s answer seems to amount to the claims that these laws are used as premises in reasoning about the subject of one’s thought. In addition, Frege is clear that rules of inference do not express thoughts that function as premises in reasoning, but it seems he gives no further account of what they are. (Ricketts supplies an answer for Frege: our grasp of such a rule consists in inferring in accordance with it, in acknowledging its force, see “Objectivity and Objecthood,” op. cit.)
What I’m suggesting can then be stated thus: not only is Wittgenstein saying that all sentences that Frege and Russell took to be laws of logic in fact are rules of inference, but he is also saying that these rules look like statements with content but are not, that they are to be taken up in a different way. They don’t tell you that something is the case; they show you (the) ways to use words (and thought-elements) so as to be able to tell anyone anything.