FALSITY, NEGATION AND MODALITY: REPLY TO LUIZ CARLOS PEREIRA

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Abstract: In §1 I explain that my rejection of possible (and impossible) states of affairs as a basis for an account of falsity is not part of a general rejection of modal notions but is a rejection of possible and impossible entities of any sort. I then show that my account of senses and of propositions is indeed a modal account. In §2 I examine some of Wittgenstein's ideas about falsity, as presented by Luiz Carlos, in relation to my account of falsity and negation. In §3 I discuss the modal aspects of identification for propositions.

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Luiz Carlos raises some questions about falsity, negation and the nature of propositions. He is especially concerned with the issue of modality, and his main concluding question is: "can we really give a non-modal descriptive account of propositions (statements)?" I will begin with some remarks about that.

1. MODALITY

My blunt dismissal of a modal treatment of falsity in p. 47 misled some readers into thinking that I am *against* modal notions and that I

want to avoid them. My negative remarks about possible worlds and about a modal criterion for identity of properties in pp. 355-56 did not help either. As I explain in §2 of my reply to Frank Sautter I am *not* against modality – but I do want to be careful when using modal notions.

Let us consider the question of possible states of affairs. I am not at all sure what a possible state of affairs is, and much less an impossible state of affairs[1]. In fact, although I differ from Quine on modality, I agree with him that one should be suspicious of *possible entities* – hence my reference to "On What There Is" in note 3 (p. 68). Whereas it may be possible for there to be a fat man in my doorway, it does not make much sense to talk about the (or a) possible fat man in my doorway – for, as Quine asks, how many possible fat men are there in my doorway anyway? Moreover, I agree with Russell that one should be even more suspicious of *impossible entities* like square circles and reducible irreducible fractions – therefore my reference to Russell in note 3. Although I may be prejudiced about this, I did not want to go down that road for an analysis of the problem of falsity.

My rejection of the modal criterion of identity for properties is based on similar considerations. According to the criterion properties are the same when they *necessarily* have the same instances. The problem is not the 'necessarily' but the fact that this criterion will make *all* coextensive mathematical and logical properties the same property – at least as long as we agree that mathematical and logical truths are necessary truths. This seems to me a totally unacceptable conclusion for anyone who has the slightest interest in discussing logical and mathematical properties. For consider the properties [k is a natural number > 2 for which there are natural numbers n, m, r such that $n^k+m^k=r^k$] and [k is an even prime > 2]. Is it reasonable to suppose that these necessarily coextensive properties are the *same* property?

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[1] See §3 of my reply to Jairo José da Silva.

My rejection of possible and impossible states of affairs was not a wholesale rejection of modality, therefore – or even "a general criticism of ... modal accounts of the problem of falsity and negation" as Luiz Carlos says in p. 184 – but a rejection of a very specific modal approach. As a matter of fact, my characterization of senses in Chapter 11 is a modal characterization. In p. 376 I say that "a sense is either a property *is the F*, which has unicity as a logical feature of it, or a property that is necessarily equivalent to such a property"[2]. Since for me propositions are senses, my answer to Luiz Carlos' question is that my characterization of propositions in chapters 11 and 12 *is* a modal characterization. I do not know the answer to the more general question of whether one *can* give a non-modal characterization of propositions. I will turn now to some of the more specific points made by Luiz Carlos.

2. WITTGENSTEIN ON FALSITY AND NEGATION

I avoided discussing Wittgenstein in my book because I do not feel as comfortable discussing his ideas as I feel discussing Frege, Russell or Quine – although the idea of sentences as maps in p. 415 involves an indirect reference to Wittgenstein. But I will comment here on some of the points that Luiz Carlos makes about the *Notebooks 1914-16* and about the *Tractatus*.

Whereas I do agree that "contradictory propositions ... are not pictures of reality", I disagree that necessary propositions (including tautologies) are not pictures of reality – although I would put it in terms of reference rather than picturing. I hold that Quine's self-identity, or his mortality or non-mortality, are logical facts involving Quine. Due to the contingency of Quine's existence, these logical facts are contingent as well, but they involve necessary properties of Quine that derive from

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[2] More specifically, a (singular) sense is a unary property P that is necessarily equivalent to a property $[Fx \ \& \ \forall y(Fy \rightarrow y=x](x)$, for some property F.

general logical laws. This, of course, is a major difference with Wittgenstein's "metaphysics of the symbolism", as Luiz Carlos puts it.

Furthermore, I differ from Wittgenstein on the question of facts. As I discuss in my reply to Richard Vallée, I do not see the question of negative properties and of negative facts as being a momentous one. To put it paradoxically, I agree with Plato that negativeness is positive; *i.e.*, that negativeness is not a lack of something, but a presence of something else. Or, as I put it in p. 51, "that what is expressed in a negative statement is not a *lack* of reality but an *aspect* of reality" – which is a view that I attribute also to Russell on the basis of his acceptance of negative facts[3]. Luiz Carlos' quote from (*Notebooks 1914-16*, 25.11.14) suggests an argument to the effect that there will also have to be disjunctive facts, conditional facts, etc. "But then", asks Wittgenstein, "*must* not *all facts* be on the same level?" This is an interesting question that I discuss in Chapter 5 in connection with Russell's views. Let me say something about it here.

Take a disjunctive statement like 'Luiz Carlos is either at home or at the office'. The feeling one has is that there is no such thing as a *disjunctive fact* of LC being at home or at the office. What would such "disjunctivity" *be*? The natural thing to say is that either LC is at home or LC is at the office. One of *these* is a fact, and the disjunctive statement is true because of it. The truth of the disjunctive statement is a function of the truth or falsity of the component statements. Let us suppose that LC is actually at home, so *that* is the fact. Now, of course, LC is not just at home, but he is either in the living room, or in the dining room, or in the bedroom, or ... Let us suppose that he is actually in the living room. So *that* is the fact. But he is not just in the living room; he is either sitting on the couch, or standing by the window, or ... Are we to end up saying that

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[3] I think that these remarks together with the remarks in my reply to Richard Vallée may help answer the questions about obversion, Aristotelian indefinite terms and Kantian infinite judgments that Luiz Carlos raises at the end of his paper.

the fact is that LC's center of gravity is at the space-time point with coordinates (*a*, *b*, *c*, *d*)? (And this, obviously, would still not be the end of the matter.) Or are we to postulate some simple entities that somehow account for LC being at home or at the office in some unexplained way?

My view is that instead of analyzing the statement that Luiz Carlos is either at home or at the office as a disjunctive statement[4], we should analyze it as the disjunctive predication

(1) [*x* is at home ∨ *x* is at the office](Luiz Carlos)

involving the disjunctive predicate '[*x* is at home ∨ *x* is at the office](*x*)'. There is nothing mysterious about such a predicate. If we have conditions of applicability for the predicates '*x* is at home' and '*x* is at the office', then we also have conditions of applicability for the predicate '[*x* is at home ∨ *x* is at the office](*x*)'. This predicate refers to a disjunctive property, which is the property that Luiz Carlos has by being at home or at the office, and Luiz Carlos having this property is the fact to which the statement refers. I suspect that this account may not be acceptable to some people, but I think that it is a much more natural (and simpler) account.

Let me turn now to Luiz Carlos' story illustrating the *Tractatus* solution to the problem of falsity and negation. I emphasize in my book that to take into account not only true propositions and false propositions (statements, sentences, etc.) but also truth-valueless propositions is essential for the treatment of falsity and negation. It is then immediately clear that one cannot define falsity simply by opposition. Let me illustrate this with Peter.

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[4] We *can* also analyze it as a disjunctive statement, but then it is a statement involving a predicate '*p* is true or *q* is true' that is predicated of the statements 'Luiz Carlos is at home' and 'Luiz Carlos is at the office'.

Peter draws a picture portraying a cat on a table and draws a big 'X' over it. This will work fine if the cat is under the table, or in the next room, or ... Suppose however, that Peter's picture is wrong because there is no cat, or because there are many cats – so that 'the cat' does not refer to anything – and suppose that Peter still draws a big 'X' over it. How can we tell what is going on? My view (after Frege) is that if 'the cat' does not denote, then the proposition 'the cat is on the table' is neither true nor false. But if Peter shows me a picture of a cat on a table with a big 'X' on it, then I do not know whether he is crossing it because the cat is not on the table, or because *there is no cat*, or because *there are several cats*[5].

One can argue that it is wrong in *all* these cases. I agree, but the picture does not tell us *in which way* it is wrong – *i.e.*, it does not tell us whether the cat is not on the table because the cat is somewhere else or because there is no such thing as *the cat*. What the crossed picture gives us is the sentential negation 'it is wrong that' or 'it is not the case that' or 'it is not true that', and the problem with sentential negation is that it is not sensitive to these distinctions. Moreover, if there is no cat, then "the cat" is neither on the table nor not on the table, and in these circumstances the assertion that the cat is not on the table is just as wrong as the assertion that the cat is on the table. But we cannot make this distinction because if we draw another big 'X' on top of the picture portraying a cat on a table with the big 'X' on it, we get something false. This happens because the sentential negation of a truth-valueless statement is true and the sentential negation of a true statement is false.

One can also deny that there are propositions (or statements) that are neither true nor false, of course. Or one can force an interpretation such as Russell's theory of descriptions (and of names) that makes every analyzed proposition come out either true or false. In my book I argued

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[5] There may also be no table, or several tables, etc. See the discussion of falsity in pp. 411-16.

at length that such solutions are both artificial and unconvincing, but I do not expect general agreement about this.

3. IDENTIFICATION

The last part of Luiz Carlos' paper is mainly concerned with the question of the identifying character of statements. I make some comments about identification in §2 of my reply to Dirk Greimann, so I will only discuss here the modal aspect of identification[6].

Consider the proposition 'Socrates flies' that Luiz Carlos uses as example. What is the identifying character that I attribute to it? The name 'Socrates' denotes Socrates, and therefore identifies something in the world. The predicate 'flies' denotes a property that consists basically of the identity conditions for something flying. A state of affairs of Socrates flying *would* consist of a combination of the property flying with the individual Socrates. If the property flying *were* to combine with the individual Socrates, then this combination *would be* the state of affairs of Socrates flying. This essentially agrees with Luiz Carlos' tractarian account in p. 189, but I disagree with his final claim that "[t]here is a unique possibility that, if actualized, would make the proposition true".

On the contrary, it seems to me that there are indefinitely many possibilities that if actualized would make the proposition 'Socrates flies' true. Socrates could fly fast, slow, high, low, north, south, etc. So it is not this kind of uniqueness that is in question. I think that the uniqueness is more "formal". Either the property flying combines with Socrates or it does not. If it does, because Socrates flies, then that's *it*. It does not matter which way Socrates flies, the state of affairs is the *combination*. There *might* be another state of affairs of Socrates flying slowly, but this

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[6] I would also add to the components of my ideas that Luiz Carlos lists in p. 188 that from Plato and Frege I take the idea of the subject-predicate analysis of form.

for me *would be* a different state of affairs involving a different property. Let me give two examples.

7 is prime and 7 is smaller than 10, but the state of affairs of 7 being prime is (for me) a different state of affairs from the state of affairs of 7 being a prime less than 10. The properties of being prime and of being a prime less than 10 are different properties. Similarly, I am at home now and I am in my study now, but the state of affairs of my being at home now is different from the state of affairs of my being in my study now, even though by being in my study now I am at home now. In this case we can actually argue subjunctively that I *could* have been at home without being in my study, and therefore that the states of affairs in question cannot be the same. (This sort of argument will not work for the mathematical example, however.) The reason that we can argue in this way is because states of affairs and properties are intensional, as I emphasize in p. 59.

It is quite true therefore that modality is not eliminated in my treatment of these subjects. But what I did want to eliminate was the appeal to possible and impossible entities hovering around in my doorway.