Why classical Russellian propositions have truth conditions, in terms of essence and ground

Jeffrey King writes:

> That propositions represent—that is, that they have truth conditions–is something that needs to be explained. According to "classical" conceptions of propositions of the sort championed by Frege and Russell, propositions have truth conditions by their very natures and independently of minds and languages. . . . [S]ince the classical conception of propositions as things that have truth conditions by their very natures and independently of minds and languages is incapable of explaining how or why propositions have truth conditions, it is unacceptable (2014: 47).

This paper defends a novel account of why propositions have truth conditions, and why they have the specific truth conditions they do. One virtue of the account is that it is fully regimented in a formal language (though in this abstract I sketch the account informally).

The formal language in question is standard plural first-order logic (Linnebo 2012, sect. 1.1), supplemented with (i) term-forming lambda operators, which attach to open or closed formulas to form canonical names for properties, relations, and propositions (Quine 1960; Bealer 1982; Zalta 1983; Menzel 1993), (ii) term-forming bracket operators, which attach to sentences to form names of facts (Rosen 2010), so that, e.g., '[grasss is green]' denotes the fact that grass is green, (iii) a ternary predicate, 'PLUG1', which can be used to say that n-adic relation R results from plugging object o into the first slot in n+1-adic relation R*, (iv) denumerably many predicates of the form 'HOLD^n', for instantiation, with which we can write, e.g., 'HOLD^2(humanity, obama)' and 'HOLD^3(*being taller than*, obama, devito)', (v) a modal operator for metaphysical necessity, (vi) an essence operator (Fine 1994), and (vii) a two-place, non-distributive predicate for full grounding (Rosen 2010), which lets us write, e.g., 'the fact that grass is green and snow is white is grounded by: the fact that grass is green, the fact that snow is white (collectively).

It is argued that if

(1) atomic Russellian propositions are 0-adic relations (Bealer 1982; Zalta 1983; Menzel 1993; van Inwagen 2004, AUb), and

(2) truth is just the '1-adic version of' the instantiation relation (Menzel 1993; Dixon forthcoming),

then – *contra* King – the facts about the truth conditions of particular atomic, Russellian propositions are not fundamental or inexplicable; rather, these facts are grounded (and explained) by facts about the instantiation conditions of their constituent relations, together with the facts about how these propositions result from plugging certain objects into certain slots in the given relations. (For a defense of slots, see AUa.)

The key idea is that atomic propositions have the truth conditions they do for basically the same reasons that relational properties and other 'partially saturated' relations have the holding conditions *they* do. Consider the ternary relation being an x, y, and z such that Sacramento is further from x than y is from z. Call it *r3*. It has *holding conditions*, which are captured by the following fact:

t3 [it is necessary that for any x, any y, and any z, r3 holds of x, y, and z in that order iff Sacramento is further from x than y is from z].

Fact t3 is grounded by a corresponding fact about the holding *essence* of r3, viz.:

e3 [it is essential to r3 that for any x, any y, and any z, r3 holds of x, y, and z in that order iff Sacramento is further from x than y is from z].

What, if anything, grounds e3? In virtue of what does r3 have those holding conditions? Plausibly, e3 is grounded by these two facts, collectively:

p.i [r3 results from plugging Sacramento into the first slot in the four-place relation being an x, y, z, and w such that x is further from y than z is from w (call it *r4*)],

e4 [it is essential to r4 that for any x, y, z, and w, r4 holds of x, y, z, and w in that order iff x is further from y than z is from w].

In other words, r3 has the holding conditions it does because it results from plugging Sacramento into a certain slot in a different relation, r4, and r4 has the holding conditions *it* does. (As to the grounds of e4: on the assumption that r4 is a simple and unanalyzable relation, the fact that it has the given holding conditions is fundamental – not grounded by any fact or facts.)

I argue that the most natural way of generalizing on examples like the above yields an account of why atomic propositions have the truth conditions they do. Let *r0* be the proposition that Sacramento is further from Delhi than Princeton is from South Bend. Here is a fact about its truth conditions:

t0 [it is necessary that r0 is true – i.e., holds, *simpliciter* – iff Sacramento is further from Delhi than Princeton is from South Bend],

which is grounded by a fact about its truth essence:

e0 [it is essential to r0 that r0 is true (*holds*) iff Sacramento is further from Delhi than Princeton is from South Bend].

According to the generalized principle that I formulate, e0 is grounded by these two facts, collectively:

p.iv [r0 results from plugging South Bend into the first (and only) slot in the one-place relation being an x such that Sacramento is further from Delhi than Princeton is from x (call that relation *r1*)],

e1 [it is essential to r1 for any x, r1 holds of x iff Sacramento is further from Delhi than Princeton is from x].

Thus, r0, a proposition, has the truth conditions it does for basically the same reason that r3, a partially saturated ternary relation, has the holding conditions that it does: t0 is (fully) grounded by e0, which is grounded by p.iv and e1, which is grounded in a parallel way by the not-yet-mentioned facts p.iii and e2, and so on. At the fundamental level are e4 and four facts about plugging.

References

AUa
AUb
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