Lessons from Russell

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The problem of relations

Three assumptions:
A1 There are symmetrical relations, e.g. expressed by “x is 2 metres apart from y”: \( xSy \leftrightarrow ySx \)
A2 There are non-symmetrical relations, e.g. expressed by “x loves y”: \( xLy \neq yLx \)
A3 Some non-symmetrical relations \( L \) may have symmetric completions: \( \exists x, y (xLy \land yLx) \) (e.g.: some love is reciprocated).

Three desiderata:
D1 For non-symmetrical relations \( L \), there is a meaningful notion of converse (expressed by “\( \bar{L} \)”) such that \( \bar{L} \) is distinct from \( L \).
D2 Identity 1: for non-symmetrical relations \( L \), \( aLb = \bar{b}La \)
D3 Identity 2: for symmetrical relations \( S \), \( aSa = bSa \)

Problem: What account of relational facts, respecting the assumptions, satisfies all three desiderata?

Monadism

Leibniz, Lotze: Relations reduce to monadic properties of their relata (\( aRb = Fa \land Gb \)).
Russell 1903:Monadism does not respect A2, for we need to add FR′G and cannot give a monadistic account of it, on pain of regress.
Possible twist: relational properties. But as Hochberg 1988 argues, relational properties are posterior, not prior to relations.
Another possible twist: Russell’s regress is harmless, because all relations are internal. But there are some external relations (e.g. causation) and even if there weren’t, internal relations also give rise to the regress.

Monism

Spinoza, Bradley: Relations reduce to monadic properties of wholes having only their relata as parts (\( aRb = F(ab) \)).
Russell 1903: Monism does not respect A2, for it does not allow us to distinguish \((ab)\) from \((ba)\).

Directionalism

Russell 1903, 1919, Hochberg 1981, Gaskin/Hill 2012: Relations have a sense, or direction.
There are different ways directionalist can account for A1 and A3, and the view respects D1 and may be made to respect D3. But it does not satisfy D2.
Ramsey 1925, Hochberg 1999? : 159 : Because D2 is not satisfied, this forces upon us an arbitrary choice.
Fine 2000: On a “certain view of how relations are implicated in states or facts”, p3 Uniqueness: no complex is the completion of two distinct relations (p5) D2 is incompatible with D1.
Intermediate conclusion: Giving up on converses

Russell 1913: Relations are “neutral as regards sense”. p88
Williamson 1985, Fine 2000: There is no meaningful notion of converse. We give up on 
D1.
But how are we to account for A2?

Positionalism

Williamson 1985: in aLa, a fills the first argument position of L and b the second, while in bLa it’s 
the other way round (aLa = L(a, b, \{a, αL\}, (b, βL))).
Fine 2000: This does not “allow for a meaningful notion of converse” (because positionalist relations 
are not capable of sharing argument places)9
(COPY), 8: 40-1 (GRAZER), 8: 175 (FILE)
Hochberg 1999: positionalism cannot account for similarity that is merely “a matter of order”.
Hochberg 1999: this “recognizes positions (holes, places), as purported entities” (p. 175).
8: 153, 8: 175
Fine 2000: positionalism “requires us to accept argument-places or positions as entities in their own 
right” (p. 16).
Grossman 1992, Fine 2000: positionalism does not respect D3, because some symmetric relations 
are also neutral.
How plausible is D3? Armstrong 1997:90-1, Fine Hochberg is happy to bite this bullet (1999: 156-7)

Anti-Positionalism

Fine 2000: in aLa, a and b fill the argument positions in the same way as in some exemplar sLt, while 
in bLa they do not.
MacBride 2007: anti-positionalism has all the problems of resemblance nominalism.
Hochberg 2000, Dorr 2004: we still need to make order-comparisons between completions of dif-
ferent relations.

A Lesson from Russell?

Russell 1913: in aLa, there are relations “which constitute ‘position’ in the complex” (p. 88): aLa = 
∃x((αL(a, x) ∧ βL(b, x))). These are neutral, but cross-categorical (“heterogeneous”), i.e. neither 
symmetric nor asymmetric, as no “logically possible complex results from interchanging” their terms.
This satisfies D1: Given aLa with non-symmetrical L, aLa := ∃x(αL(b, x) ∧ βL(a, x)).
This satisfies D2: bLa = ∃x(αL(a, x) ∧ βL(b, x)) = aLa.
Hochberg 2001, p. 197: it does not satisfy D3: aSb = ∃x(αS(a, x) ∧ βS(b, x)) ̸= ∃x(αS(b, x) ∧ 
βS(a, x)).
Could Russell give a monistic analysis of symmetrical relations: aSb = S(ab)? No, because there is 
a difference between a and b playing tennis with c and d on the one, and a and c playing tennis with 
b and d on the other hand.

9It is also not entirely clear to me how what exactly this means. On positonalism, Fine says: “Nor does the present 
[positonalist] notion of exemplification permit a meaningful notion of converse. We may indeed ask whether, for given 
argument-places α, β, α’, and β’, the relation R’ holds under the assignment of α to α’ and b to β’ just whenever R holds 
under the assignment of a to α and b to β’. But this merely tells us whether the relations are coextensive under the given 
alignment of argument-places. To obtain the notion of converse, we also need to assume that α’ = β and β’ = α, But 
I doubt that there is any reasonable basis, under positonlism, for identifying an argument-place of one relation with an 
argument-place of another.” (p. 12). 8: 34 says this is an extra assumption.
But even if this difference in treatment of symmetrical and non-symmetrical relations can be (inde-
pendently, non ad-hoc-ly) justified, there will still be two completions in the case of non-symmetrical rela-
tions (A3). If a and b love each other: $aLb = \exists x (\alpha_L(a, x) \land \beta_L(b, x)) \neq \exists x (\alpha_L(b, x) \land \beta_L(a, x)) = bLa$.

Hochberg’s three modifications: (i) make the positional relations topic-neutral, (ii) include the rela-
tional universal, (iii) include the relational fact’s logical form: $aLb = \exists x (\alpha(a, x) \land \beta(b, x) \land \text{at}(R, x) \land \text{inf}(\Psi, x))$. (i) means that the positional relations are irreducibly ordinal, (ii), according to Hochberg himself and MacBride, entail that D2 is violated (though I do not see what definition of converse would give us this result).

Questions:
1. Is it plausible that we do not have to explain the non-symmetry of heterogeneous relations?
   It is true that there is no differential applicability, but there are still - converses - different
   relational properties
2. Why do Hochberg and MacBride think that Hochberg’s account satisfies D1 but not D2?
3. what about the unordered complex - in virtue of what does it stand in R1 to a and R2 to b
   rather than standing in R1 to b and in R2 to a?
   my differences to Hochberg/MacBride’s reconstruction: no neutral relation, no unordered
   complex.
4. 5.

References
Hochberg, Herbert, 1981a. “Logical Form, Existence, and Relational Predication”. In French, Peter A., Uehling,
Reprinted in ? 143–146


