

# Quantificational States

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Under Davidsonian proposals, the semantics of relational Vs goes from (1a) to (1b)/(1c). Similarly (in principle) for relational As (2a-c), Ps (3a-c) and Ns (4a-c). where we extend the relevant notions to states (s).

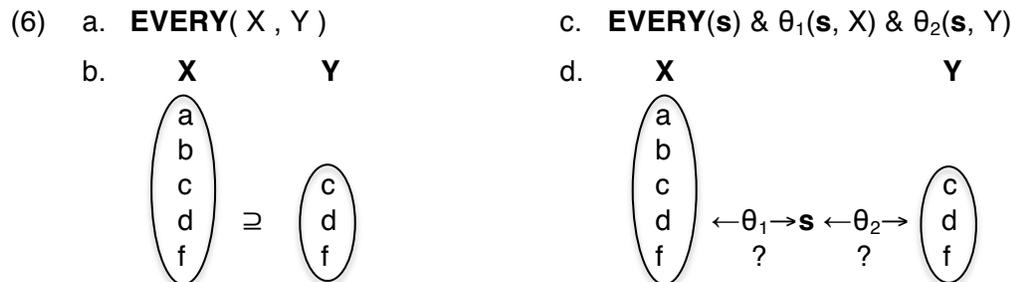
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| <p>(1) Shem <b>kicked</b> Shaun.</p> <p>a. <b>kick</b>( x, y )</p> <p>b. <b>kick</b>( x, y, <b>e</b> )</p> <p>c. <b>kicking</b>(<b>e</b>) &amp; <math>\theta_1(\mathbf{e}, x)</math> &amp; <math>\theta_2(\mathbf{e}, y)</math></p>    | <p>(2) Shem is <b>envious</b> of Shaun.</p> <p>a. <b>envious-of</b>( x, y )</p> <p>b. <b>envious-of</b>( x, y, <b>s</b> )</p> <p>c. <b>envy</b>(<b>s</b>) &amp; <math>\theta_1(\mathbf{s}, x)</math> &amp; <math>\theta_2(\mathbf{s}, y)</math></p>         |
| <p>(3) Shem is <b>near</b> Shaun.</p> <p>a. <b>near</b>( x, y )</p> <p>b. <b>near</b>( x, y, <b>s</b> )</p> <p>c. <b>proximity</b>(<b>s</b>) &amp; <math>\theta_1(\mathbf{s}, x)</math> &amp; <math>\theta_2(\mathbf{s}, y)</math></p> | <p>(4) Shem is a <b>relative</b> of Shaun.</p> <p>a. <b>relative-of</b>( x, y )</p> <p>b. <b>relative-of</b>( x, y, <b>s</b> )</p> <p>c. <b>kinship</b>(<b>s</b>) &amp; <math>\theta_1(\mathbf{s}, x)</math> &amp; <math>\theta_2(\mathbf{s}, y)</math></p> |

Consider now quantifiers, widely taken to express relations between properties (5a)/(6a). Are state variables (5b)/(6b) motivated here too? Is argument separation (5c)/(6b) desirable or even possible?

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| <p>(5) <b>All</b> men complain.</p> <p>a. <b>ALL</b>( X , Y )</p> <p>b. <b>ALL</b>( X , Y, <b>s</b> )</p> <p>c. <b>P</b>(<b>s</b>) &amp; <math>\theta_1(\mathbf{s}, X)</math> &amp; <math>\theta_2(\mathbf{s}, Y)</math></p> | <p>(6) Men <b>always</b> complain.</p> <p>a. <b>ALWAYS</b>( X , Y )</p> <p>b. <b>ALWAYS</b>( X , Y, <b>s</b> )</p> <p>c. <b>P</b>(<b>s</b>) &amp; <math>\theta_1(\mathbf{s}, X)</math> &amp; <math>\theta_2(\mathbf{s}, Y)</math></p> |
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The answers are far from clear.

- With V, A, P and N we have some intuitive grasp on the eventualities involved, and on plausible relations to them (Agent, Theme, Experiencer, Location, Locatum, etc.). With quantification the corresponding notions are at best obscure.
- Surely if anything would seem to embody a pure relation between individuals, it's a Q-relation, which simply evaluates cardinalities, proportions, etc. of sets of individuals (6a,b). What happens to this relation with a state parameter interposed (6c,d)?



We seem to be trying to “Davidsonianize” set theory.

Nonetheless, in this talk, I will suggest that under certain assumptions:

- Quantificational state variables do seem to be motivated.
- Argument separation with quantifiers do seem to be both desirable conceptually and possible technically.