

Proposed Definition of Propositions

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For simplicity, let us just consider propositions involving dyadic relations. A at time T understands $P a b = df.$

$K K$
 $E i_P E i_a E i_b$
 $S i_P P$
 $S i_a a$
 $S i_b b$

Now we get the class of all such understanding as:

$\wedge S_{A,T} \wedge P_{A,T} \wedge a_{A,T} \wedge b_{A,T}$
 $E A E T E i_P E i_a E i_b$
 $K K$
 $S_{A,T} i_P_{A,T} P$
 $S_{A,T} i_a_{A,T} a$
 $S_{A,T} i_b_{A,T} b$

Above “ \wedge ” means class of – or relation.
I would define it as in PM *20 for classes.
Or as in *21 for relations.

Noting the items with subscripts are variables, this is the same as:

$$\wedge P \wedge a \wedge b$$
$$\exists S \exists i_P \exists i_a \exists i_b$$
$$K K K$$
$$\text{idea_object_relation } S$$
$$S i_P P$$
$$S i_a a$$
$$S i_b b$$

There must be an idea_object_relation predicate.

There is a also more simply definable class of all psychological beliefs = df.

$$\wedge A \wedge T \wedge i_P \wedge i_a \wedge i_b$$
$$K$$
$$B_{A,T} i_P i_a i_b$$
$$\text{psychological_belief_relation } B_{A,T}$$

Note: there are really no such thing as classes or extensional relations. Their occurrence is defined away according to context. (Using relations in intension.)

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