Who is she and why is she so scary? Psych verbs and the mapping from semantics to syntax

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Subjects and objects of verbs play specific conceptual roles.

These mappings generalize across verbs as well as to novel verbs (Marantz, 1982).

Psych verbs present a challenge for theory (Dowty, 1991; Levin & Rappaport Hovav, 2005):

Questions:
Do psych verbs present a problem to the learner? Is there a default mapping?

Experiment 1
At what age do kids learn the argument structure of psych verbs?
6 ES verbs and 6 SE verbs

Discussion
4 y.o.s may assume like, love & hate are bidirectional. Their experience tends to reinforce this. Fright and surprise are rarely bidirectional.

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Experiment 2
4 y.o.s (N=16)
Truth-Value Judgment Task (Crain & Thornton, 1998)

Discussion
4 y.o.s may assume like, love & hate are bidirectional. Their experience tends to reinforce this. Fright and surprise are rarely bidirectional.

Experiment 3
New, unidirectional stories for like, love & hate. Old frighten, confuse & surprise stories used as filler. 4 y.o.s (N=12)

Discussion
Reinforcing unidirectionality improved performance on like - The most common psych verb. But love and hate remained at chance.

Conclusion
4 y.o.s know argument structure of some SE verbs (e.g., frighten). But have poor knowledge of argument structure of ES verbs (e.g., fear) Despite more experience with ES verbs.

Hypothesis 1: Early knowledge of argument structure mappings Suggests early acquisition of these verbs is governed by generalizations. - Not verb islands (Tomasello, 1992)

Hypothesis 2: Late knowledge of argument structure mappings Suggests conceptual bias (cf Pesetsky, 1995).

References

Child-directed frequency counts for verbs used in this study (CHILDES: MacWhinney, 2000)

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<thead>
<tr>
<th>Experience-Stimulus</th>
<th>Stimulus-Experimenter</th>
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<tbody>
<tr>
<td>like (13,515)</td>
<td>scare (251)</td>
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<tr>
<td>love (1,333)</td>
<td>surprise (62)</td>
</tr>
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<td>hate (169)</td>
<td>frighten (22)</td>
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<td>trust (22)</td>
<td>bore (18)</td>
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<td>fear (22)</td>
<td>confuse (15)</td>
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<td>admire (4)</td>
<td>amaze (2)</td>
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Experiencer-Stimulus  | Stimulus-Experimenter
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<tbody>
<tr>
<td>frighten, scare, surprise</td>
<td>above chance</td>
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<tr>
<td>amaze, bore, confuse, admire, love, like, hate</td>
<td>at chance</td>
</tr>
<tr>
<td>fear, trust</td>
<td>below chance</td>
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