
A computational model of the pragmatics of spatial language interpretation

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Abstract

The interpretation of locative expressions depends on whether other objects are present and whether the purpose of the speaker is to *indicate* or to *verify*. When indicating, ‘to the left’ means ‘close and horizontally to the left.’ When verifying, ‘to the left’ means ‘somewhere in the field to the left.’ Ratings of applicability depend on angle but not on distance. For the first time, we have built a Rational Speech Act model to explain the findings of the spatial language literature. A preliminary experiment confirms the hypotheses derived from our model except for those concerning distance effects in verification behavior.

Keywords: Spatial language, RSA, probabilistic modelling

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