

An information-theoretic explanation of adjective ordering preferences

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Across languages, adjectives are subject to ordering restrictions. Recent research shows that these are predicted by adjective subjectivity, but the question remains open why this is the case. We first conduct a corpus study and not only replicate the subjectivity effect, but also find a previously undocumented effect of mutual information between adjectives and nouns. We then describe a rational model of adjective use in which listeners explicitly reason about judgments made by different speakers, formalizing the notion of subjectivity as agreement between speakers. We show that, once incremental processing is combined with memory limitations, our model predicts effects both of subjectivity and mutual information. We confirm the adequacy of our model by evaluating it on corpus data, finding that it correctly predicts ordering in unseen data with an accuracy of 96.2 %. This suggests that adjective ordering can be explained by general principles of human communication and language processing.