

# **Rudimentary modeling of acceptability judgement from a large scale, unbiased data**

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## **Abstract**

Acceptability Rating Data for Japanese (ARDJ) is a project that explores the true nature of acceptability judgement based on a large-scale survey using theoretically unbiased stimuli. Its main survey was carried out in 2018 in two phases with carefully constructed 300 stimulus sentences: Phrase 1 was a smaller scale experiment with roughly 300 college students; Phase 2 was a large scale web survey with over 1,600 participants.

This paper reports on phase 2 and provides two results: Analysis 1 brought us a good typology of 300 sentences; Analysis 2 implements explicit modeling of acceptability judgement using Semi-supervised local Fisher discriminant analysis.

The results, if combined, suggest that i) acceptability is not a simple dichotomous partitioning of stimuli; ii) acceptability is a complex property that emerges through an interplay among the three factors: 1) degree or strength of deviance, 2) syntactic and/or semantic complexity of stimulus, and 3) localizability of deviance.