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Authors

Kuroda, Kow
Yokono, Hikaru
Abe, Keiga
et al.

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

Kow Kuroda

Kyorin University, Mitaka, Tokyo, Japan

Hikaru Yokono

Fujitsu Laboratories, Ltd., Kawasaki, Japan

Keiga Abe

Gifu Shotoku Colledge, Gifu, Japan

Tomoyuki Tsuchida

Kyushu University, Hakata, Japan

Yoshihiko Asao

National Institute of Communications Technology, Kyoto, Japan

Yuichiro Kobayashi

Nihon University, Tokyo, Japan

Toshiyuki Kanamaru

Kyoto University, Kyoto, Japan

Takumi Tagawa

University of Tsukuba, Tsukuba, Japan

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.