

# Modeling social influences on politeness

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“This cake was good!” – The interpretation of how ‘good’ speakers of this utterance actually found the cake to be, may depend on the relationship between interlocutors, for example, whether they are an employee praising their boss’ cake or close friends. Relationships between interlocutors can be characterized along the ‘dimensions’ of social distance, and power – both of which have been found to influence politeness in various ways (Brown & Levinson, 1987; Holtgraves & Bonnefon, 2017). Other influences on the production and understanding of politeness, such as the presence of third parties (Leech, 2014), or gender (Holtgraves & Bonnefon, 2017), have been identified as well.

In order to model linguistic politeness computationally, to be applicable in artificial conversational agents for example, our recent research aims at identifying influences on politeness and how these interact. We will present three studies in this direction:

- An extension of Yoon et al.’s (2016) Rational Speech Act model of politeness, which provides insights into how indirect politeness is influenced by the speaker-hearer relationship (Lumer & Buschmeier, 2022a).
- A questionnaire-based study, which collects evaluations of power and distance for different human-human and human-robot relationships (Lumer & Buschmeier, 2022b).
- A qualitative semi-structured interview study, to gain further insights on possible influences on politeness as well as differences in expectations people have for the politeness use of robots compared to humans.

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