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研究課題名（和文）Computational semantics and pragmatics of honorification and particles in Asian languages

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研究成果の概要（和文）：この研究では、日本語・タイ語・英語などにおける敬語や終助詞に現れる社会的意味合いの分析をし、言語の使用と社会的構造のつながりを調べたと共に、英語や日本語などに現れるジェンダー表現、ヘイトスピーチ、そしてドッグホイッスルの政治発話の分析を行った。数式や数学の道具を使って、コンピューター翻訳などの基礎になる研究である。結果はオクスフォード大学出版から2019年の夏に本として出版される以外に、多くの学術論文や講演として発表された。

研究成果の学術的意義や社会的意義

This project has clarified the role of honorification and other aspects of social meaning within semantics and pragmatics, and has developed a set of formal tools for analyzing them. This is both important for academic purposes and for understanding how language functions to influence social facts.

研究成果の概要（英文）：This project has focused on social meaning and the ways in which it is expressed by honorification and discourse particles in Japanese and Thai, as well as in the function of slurs, dogwhistles and gender marking in these languages and English. Because this research makes use of mathematical techniques such as logic and game theory, it can form the foundation of a computationally implementable theory of social meaning for applications such as machine translation and the classification of hate speech. The results of the research will appear in the form of a book to be published in the summer of 2019 from Oxford University Press; they have also been disseminated via a number of academic publications and talks at conferences and universities, both submitted and invited.

研究分野：言語学

キーワード：言語学 語用論 意味論 敬語 終助詞

様式 C - 19、F - 19 - 1、Z - 19、CK - 19 (共通)

#### 1. 研究開始当初の背景

Politeness is widely recognized as an important linguistic phenomenon and one crucial for a variety of purposes. From a theoretical perspective, it is of great interest. Lexical expressions which express information about social status and relations closely engage problems about the nature of linguistic content and communication. The behavior of conversational agents using and processing these expressions and "polite" conversational strategies is symptomatic of deeper facts about how language is used and how speakers come to recognize each other's intentions and goals in discourse. The domain of politeness and related phenomena is therefore highly attractive for theoretical linguistic research. However, up to the present there has been no theory able to explain the full domain of politeness in language. Such a theory requires the following: (i) the demonstrated ability to analyze a wide range of phenomena, (ii) the resources to provide theoretically motivated explanations of both "polite" linguistic expressions and polite linguistic behavior, (iii) a system or systems capable of formalizing the analyses from (i) and (ii). Further, the study of social meaning and related areas has been taking off in philosophy and formal linguistics in recent years - work on gender, sociolinguistic indexicality, political speech, and especially honorification and slurs has been getting extensive attention within these fields. The present project aimed to rectify lacunae in theories of politeness and honorification within a formal tradition and situate the result in a more general landscape of social meaning.

#### 2. 研究の目的

The goal of this project was to provide a theory of honorification founded in formal semantic and pragmatic methods that is suitable to found a theory of polite linguistic behavior and its strategic use. Such a theory is useful both for computational applications and for giving a theoretical account of what is happening in linguistic honorification and polite behavior.

#### 3. 研究の方法

In this project, we used tools from semantic and pragmatic theory as well as philosophy and mathematical techniques to analyze empirical linguistic data related to politeness, honorification and other aspects of social meaning drawn from Japanese, Thai, English and other languages. Specifically, we drew on naturally occurring and constructed sentences, discourses and contexts within these languages (and cultural traditions) and produced a formal theory capable of making predictions about observed and expected patterns of honorific use (in the context of politeness and honorifics), and of patterns of offense (for slurs) and judgements about reliability, building on previous work of the principal investigator (for gender marking on pronouns). For the theory of honorification, we used as a base an analysis of composition in expressive content and some extensions of that original theory by the principal investigator, and coupled it with a dynamic view of politeness registers. Taking the result together with a default logic used to explain linguistic acts and their motivations we were able to provide a solid foundation for later work on the topic, which will appear in the form of a book this summer from Oxford University Press.

#### 4. 研究成果

This project has focused on social meaning and the ways in which it is expressed by honorification and discourse particles in Japanese and Thai, as well as in the function of slurs, dogwhistles and gender marking in these languages and English. Because this research makes use of mathematical techniques such as logic and game theory, it can form the foundation of a computationally implementable theory of social meaning for applications such as machine translation and the classification of hate speech. The results of the research will appear in the form of a book to be published in the summer

of 2019 from Oxford University Press; they have also been disseminated via a number of academic publications and talks at conferences and universities, both submitted and invited.

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