NEW AND INTERDISCIPLINARY APPROACHES TO LINGUISTIC RELATIVITY: INTRODUCTION TO THE SPECIAL ISSUE

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Abstract

This Special Issue of *Language Learning* presents an interdisciplinary state-of-the-art overview of current approaches to linguistic relativity. It contains empirical and theoretical studies and reflections on linguistic relativity from a variety of perspectives, such as associative learning, conceptual transfer, multilingual awareness, perceptual learning, semantic priming, and neurophysiology. This introduction presents the context and rationale of the Special Issue.

Introduction

The question of whether the language we speak shapes the way we think and interpret reality has been a central topic in the language sciences for over a century. The hypothesis is most closely associated with the linguists Benjamin Lee Whorf and Edward Sapir, who proposed, in one form or another, that if different languages carve up reality in different ways, then it follows that speakers of different languages have different worldviews. Elements of this idea can be traced in the writings of philosophers (Wilhelm von Humboldt, Ludwig Wittgenstein), psychologists (William James), and anthropologists (Franz Boas). Major methodological breakthroughs were made by interdisciplinary teams comprising of linguists (e.g. Kay & Kempton, 1984), psychologists and linguists (e.g. Brown & Lenneberg, 1954), and linguists and anthropologists (e.g. Berlin & Kay, 1969). Extending the research of language and thought to the field of language learning and bilingualism can be seen as a natural continuation of the linguistic relativity hypothesis: if speakers of different languages exhibit differences in their cognitive and linguistic behaviour, how do speakers of more than one language behave? Does learning a new language entail internalization of an alternative interpretation of experience, or does the first language continue to dominate the conceptual repertoire of L2 users? Such questions again have their origins in early philosophical investigations (e.g. von Humboldt), but they dovetail with more recent theorizing in the field

of language learning itself, and theoretical frameworks such as multicompetence (Cook, 2002), conceptual transfer hypothesis (Jarvis, 2007), and sociocultural theories of learning (Lantolf, 2010).

Indeed, the broader field of bilingualism is currently experiencing vigorous empirical interest in the linguistic relativity hypothesis. This development is, for example, reflected in the recent volumes and journal special issues on language and thought in speakers of more than one language (Bylund & Athanasopoulos, 2015; Cook & Bassetti, 2011; Han & Cadierno, 2010; Jarvis, 2011; Jarvis & Pavlenko, 2008; Pavlenko, 2011). Setting out to model the cognitive architecture of the bilingual mind, and in particular bilingual conceptual representation, researchers have turned to the prevalent behavioural paradigms used in modern Whorfian research (e.g. Kay & Kempton, 1984; Lucy, 1997) because these tasks readily allow the researcher to establish a connection between words/grammatical constructions and their real-world referents. This is crucial for unravelling the constituent elements of conceptual representations, given that the nature of those representations is multi-modal, combining verbal and non-verbal experiential elements (Pavlenko, 1999; Pulvermüller, 2003). Thus, studies employing such methodological approaches reveal that concepts in bilingual memory may be completely language-specific, or partially equivalent, with various degrees of equivalence on a continuum of near-equivalence to minimal equivalence (see Jarvis & Pavlenko, 2008; Bylund & Athanasopoulos, 2014, for reviews).

At the same time, epistemological enquiry by scholars working on the linguistic relativity hypothesis is still far from reaching consensus about the nature and the extent of influence of linguistic structure on cognitive processes such as memory, attention, and categorization, what conditions suppress or promote this influence, and which experimental paradigm may best capture Whorfian phenomena. Often the debates lead to a dead end, primarily because Whorfianism is interpreted as an all-or-nothing phenomenon: either language affects cognition or it does not. Several scholars (e.g. Casasanto, 2008; Regier & Kay, 2009) have recently pointed out that such reasoning is not only counter-productive, but ultimately flawed. For example, a common misconception of Whorf's hypothesis is to assume that thinking is not possible without language, or that thinking is somehow 'limited' by the lexical and grammatical categories made available in a particular language (e.g. Pinker, 1994; McWhorter, 2014).

Until recently, research on the nature of bilingual concepts and research on the Whorfian hypothesis have run largely in parallel without much overlap. Much work on linguistic relativity and language learning has tended to take the veracity of the hypothesis as

more or less granted, and has proceeded to focus only on its implications for language learners. Similarly, research on theoretical and methodological advancement on linguistic relativity itself has paid little attention to the fact that the majority of the world's population is in fact bi- or multilingual. Against this background, the special issue aims to lay the ground for a successful cross-fertilization of empirically informed opinion and expertise on these topics, and to stimulate a fruitful discussion around them, whereby different views are articulated and contested. To achieve this, and true to the spirit of the interdisciplinarity that characterized the early investigations, the special issue brings together contributions from linguists (Athanasopoulos & Albright; Jarvis; Montero-Melis & Bylund; Pavlenko), psychologists (Casasanto; Lupyan; Unal & Papafragou), anthropologists (Lucy), and cognitive neuroscientists (Thierry). Apart from their different scholarly backgrounds, the authors also differ to some extent in their views on central theoretical and methodological tenets.

The guest co-editors of the Special Issue, Athanasopoulos, Bylund, and Casasanto, accepted an invitation by the *Language Learning* editors, and all articles underwent one-way blind peer review. The author line-up emerged naturally from the Language Learning Roundtable session organized by the 3 guest co-editors and held in March 2014 at the Georgetown University Round Table on Languages and Linguistics (GURT) in Washington, DC. The Roundtable consisted of 3 talks on the latest developments in linguistic relativity research (Daniel Casasanto, Gary Lupyan, Anna Papafragou) and 3 talks on the state of the art in bilingualism and linguistic relativity (Panos Athanasopoulos, Emanuel Bylund, Aneta Pavlenko), with Asifa Majid and Scott Jarvis as discussants for each session respectively. Because of prior commitments, Asifa Majid was unable to contribute to this special issue. We have, however, invited contributions from 2 additional authors, namely John Lucy, whose work has been pivotal in establishing the behavioural methodological framework and basic theoretical tenets of the Whorfian hypothesis as it is commonly recognized today (see e.g. Lucy, 1992a,b; 1997), and Guillaume Thierry, whose perspective from cognitive neuroscience shows how far empirical investigation on the hypothesis has advanced, from its philosophical origins to a more biologically grounded arena, where tangible effects of language on neural indices of perception are demonstrated (e.g. Thierry et al., 2009).

The centrality of the relativity debate in the human sciences at large, its permeating influence on a number of disciplines, and its fundamental characteristic to prompt passionate engagement regardless of one's disciplinary background became apparent during the review process, where often contrasting opinions arose amongst authors, reviewers, guest editors,

and even journal editors. This served to show that a viable, inter-disciplinary research program with a clearly articulated empirical base, rather than personal conjecture, appeal to authority, or revisionist interpretation of previous authors' writings, is the way towards a more lucid picture of the role of language in our everyday behaviour and interactions with the world around us.

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