

interaction. While silence was commonly used by Japanese students to save face, verbal strategies were more common among Australian students. The extensive use of face-saving silences by Japanese students was found to be negatively evaluated by Australian lecturers whose response strategies, while meant to avoid imposition on Japanese students, also resulted in lack of rapport. However, the study also finds that silence may be negotiated when shifts occur in the participants' perceptions about the footing of their own and/or their interactants.

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07-371 OGDEN, RICHARD (U York, UK; rao1@york.ac.uk), **Phonetics and social action in agreements and disagreements.** *Journal of Pragmatics* (Elsevier) 38.10 (2006), 1752-1775. doi:10.1016/j.pragma.2005.04.011

This paper integrates sequential, interactional and phonetic analyses to provide an account of how 'paralinguistic' features create meaning. The analysis is based on assessment sequences from conversation, which were analysed using the methodology of Conversation Analysis in conjunction with phonetic analysis (cf. Couper-Kuhlen & Selting 1996; Couper-Kuhlen & Ford 2004, and papers therein). The analysis shows that there is a close relationship between the action conveyed in a turn and its phonetic format. Second assessment turns may be formatted lexically and syntactically as conveying agreement (such as *isn't that good news/yes it's very good news*), but given the right phonetic shape, they are treated as projecting disagreement. This highlights the significance of phonetics in participants' construction of meaning. The phonetic resources used to convey agreement and disagreement are broadly speaking 'paralinguistic', because they are gradient rather than categorical, and do not relate straightforwardly to propositional content. While paralinguistic features are usually said to relate to 'the speaker's current affective, attitudinal or emotional state' (Laver 1994: 21), this analysis shows that linguistic forms are recurrently mapped on to the actions conveyed by turns at talk, and that the details of these forms are syntagmatically related to the design of prior turns.

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07-372 WILSON, DEIRDRE (U College London, UK; deirdre@ling.ucl.ac.uk) & **TIM WHARTON, Relevance and prosody.** *Journal of Pragmatics* (Elsevier) 38.10 (2006), 1559-1579. doi:10.1016/j.pragma.2005.04.012

Prosodic elements such as stress and intonation are generally seen as providing both 'natural' and properly linguistic input to utterance comprehension. They contribute not only to overt communication but to more covert or accidental forms of information transmission. They typically create impressions, convey information about emotions or attitudes, or alter the salience of linguistically-possible interpretations rather

than conveying distinct propositions or concepts in their own right. These aspects of communication present a challenge to pragmatic theory: how should they be described and explained? This paper is an attempt to explore how the wealth of insights provided by the literature on the interpretation of prosody might be integrated into the relevance-theoretic framework (Sperber & Wilson 1986/1995, Blakemore 2002, Carston 2002). We will focus on four main issues. First, how should the communication of emotions, attitudes and impressions be analysed? Second, how might prosodic elements function as 'natural' communicative devices? Third, what (if anything) do prosodic elements encode? Fourth, what light can the study of prosody shed on the place of pragmatics in the architecture of the mind? In each case, we hope to show that the study of prosody and the study of pragmatics can interact in ways that benefit both disciplines.

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Neurolinguistics

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07-373 CUTTING, L. E. (Kennedy Krieger Institute, Baltimore, USA; cutting@kennedykrieger.org), **A. M. CLEMENTS, S. L. RIMRODT, J. R. ABEL, J. G. BLANKNER, S. H. MOSTOFKY, J. J. PEKAR & M. B. DENCKLA, Sex differences in cerebral laterality of language and visuospatial processing.** *Brain and Language* (Elsevier) 98.2 (2006), 150-158. doi:10.1016/j.bandl.2006.04.007

Sex differences on language and visuospatial tasks are of great interest, with differences in hemispheric laterality hypothesized to exist between males and females. Some functional imaging studies examining sex differences have shown that males are more left lateralized on language tasks and females are more right lateralized on visuospatial tasks; however, findings are inconsistent. Here we used functional magnetic resonance imaging to study thirty participants, matched on task performance, during phonological and visuospatial tasks. For each task, region-of-interest analyses were used to test differences in cerebral laterality. Results indicate that lateralization differences exist, with males more left lateralized during the phonological task and showing greater bilateral activity during the visuospatial task, whereas females showed greater bilateral activity during the phonological task and were more right lateralized during the visuospatial task. Our data provide clear evidence for differences in laterality between males and females when processing language versus visuospatial information.

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07-374 FIEBACH, CHRISTIAN J. (U California, Berkeley, USA; fielbach@uni-heidelberg.de), **JESSE RISSMAN & MARK D'ESPOSITO, Modulation of inferotemporal cortex activation during verbal**

working memory maintenance. *Neuron* (Cell Press) 51.2 (2006), 251–261.

Regions of the left inferotemporal cortex are involved in visual word recognition and semantics. We utilized functional magnetic resonance imaging to localize an inferotemporal language area and to demonstrate that this area is involved in the active maintenance of visually presented words in working memory. Maintenance activity in this inferotemporal area showed an effect of memory load for words, but not pseudowords. In the absence of visual input, the selective modulation of this language-related inferotemporal area for the maintenance of words is accompanied by an increased functional connectivity with left prefrontal cortex. These results demonstrate an involvement of inferotemporal cortex in verbal working memory and provide neurophysiological support for the notion that nonphonological language representations can be recruited in the service of verbal working memory. More generally, they suggest that verbal working memory should be conceptualized as the frontally guided, sustained activation of pre-existing cortical language representations.

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07–375 KOBAYASHI, CHIYOKO (Cornell U, New York, USA; ck227@cornell.edu), **GARY H. GLOVER & ELISE TEMPLE, Cultural and linguistic influence on neural bases of 'Theory of Mind': An fMRI study with Japanese bilinguals.** *Brain and Language* (Elsevier) 98.2 (2006), 210–220. doi:10.1016/j.bandl.2006.04.013

Theory of mind (ToM) – our ability to predict behaviors of others in terms of their underlying intentions – has been thought to be universal and invariant across different cultures. However, several ToM studies conducted outside the Anglo-American cultural or linguistic boundaries have obtained mixed results. To examine the

influence of culture/language on neural bases of ToM, we studied sixteen American English-speaking monolinguals and 16 Japanese–English bilinguals with second-order false-belief story tasks, using functional magnetic resonance imaging (fMRI). Several neural correlates of ToM including medial prefrontal cortex (mPFC) and anterior cingulate cortex (ACC) were recruited by both cultural/linguistic groups. However, some other brain areas including inferior frontal gyrus (IFG) were employed in a culture/language-specific manner, during the ToM tasks. These results suggest that the ways in which adults understand ToM are not entirely universal.

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07–376 XUE, GUI, CHUANSHENG CHEN, ZHEN JIN & QI DONG (Beijing Normal U, Beijing, China; dongqi@bnu.edu.cn), **Cerebral asymmetry in the fusiform areas predicted the efficiency of learning a new writing system.** *Journal of Cognitive Neuroscience* (MIT Press) 18.6 (2006), 923–931.

There are great individual differences in learning abilities, but their neural bases, especially among normal populations, are not well understood. Using functional magnetic resonance imaging and a training paradigm, the present study investigated individual differences in cerebral asymmetry in fusiform regions when processing a new writing system and their correlation to subsequent visual character learning. Twelve Chinese adults underwent a 2-week training to learn 120 Korean characters and they were scanned before and after the training. Results showed that left-hemispheric dominance during the pre-training task was predictive of better post-training performance. These results have significant implications for our understanding of the neural basis of language learning, especially in terms of individual differences.

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