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Causality and Agency Across Cultures and Languages

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Why does wood float on water? What made Jim shout at me, and why had he to be so offending? Who is responsible for my son's sickness? And why should incest be wrong? All these questions share one important feature: They ask for causal explanations. Causality is a core concept in our attempts to make sense of the physical world and of social interactions; and this makes causal cognition a topic of prime interest for cognitive science. Yet, in spite of an increasing body of high-quality and high-profile research, most previous studies paid only incidental attention to the potential of cognitive and linguistic diversity in causal cognition.

The cross-cultural evidence available so far (reviewed in Bender, Beller, & Medin, subm.) indicates that culture plays a crucial role in causal cognition on various levels and in all domains. It affects not only *how*, but even *whether* people engage in causal explanations, by defining the settings in which causal cognition occurs, the manner in which potential factors are pondered on, and the choices for highlighting one of several potential causes or for expressing them linguistically in one way or another (e.g., Astuti & Harris, 2008; Bender & Beller, 2011; Bohnemeyer et al., 2010; Norenzayan & Nisbett, 2000; and see the contributions in Beller, Bender, & Waldmann, 2014).

These findings justify the call for a more thorough investigation of the possibly constitutive role that culture and language may play for causal cognition (Widlok, 2014). While it is plausible that most causal learning, and even a considerable proportion of causal explanations, will be invariant across culture, without thoroughly scrutinizing each of the candidates for invariance we are not in a position to draw any generalizations. Important questions have thus remained unanswered:

- Along which dimensions do socio-linguistic groups differ in how they speak about causality, and to what extent do these differences affect how people represent causal relations?
- Is causal reasoning always based on the same cognitive mechanisms and principles, or do our cultural background and our native language shape how we process respective information?
- How are multiple explanatory frameworks organized and activated for accounts of illnesses or moral reasoning?

- Last, but not least, how can we make sure that the methods we use to investigate potential differences across cultures and languages do really capture the relevant issues in an unbiased manner?

Our symposium attempts to advance this field of research at the heart of cognitive science. It brings together researchers from various of its sub-fields, who will present theoretical analyses and empirical findings on those factors that may constrain, trigger, or shape the way in which humans think and talk about causal relationships.

- *Jürgen Bohnemeyer* has designed a large-scale survey on the linguistic representation of causality that combines approaches from psychology, linguistics, and anthropology (e.g., Bohnemeyer et al., 2010; Moore et al., in press).
- *Annelie Rothe-Wulf* and colleagues combine psychological and anthropological expertise to investigate the effect of cultural concepts and linguistic cues on causal cognition (Beller et al., 2009; Bender & Beller, 2011).
- *York Hagmayer* has for many years specialized in psychological and philosophical aspects of causal reasoning (Hagmayer & Sloman, 2009; Waldmann & Hagmayer, 2013); here he examines, in collaboration with an anthropologist, cross-cultural data on explanations for illnesses.
- *Rita Astuti*, one of Europe's leading (cognitive) anthropologists (Astuti & Harris, 2008; Astuti, Solomon, & Carey, 2004), investigates causal reasoning related to biological concepts and moral processes.

By integrating insights from their various disciplinary backgrounds, this symposium will span a broad range of the sub-fields of cognitive science in an exemplary manner.

Studying the representation of causality across languages

Jürgen Bohnemeyer

This presentation surveys the semantic and conceptual properties of linguistic representations of causal relations across languages. The principal aim is to explore the challenges involved in constructing an 'etic grid' for a semantic typology of causative constructions. Etic grids are non-language-specific sets of notional variables that jointly define conceptual

domains carved up by the meanings of language-specific expressions (Moore et al., in press). The presentation will draw on the results of a pilot study (Bohnemeyer et al., 2010) involving four unrelated languages: Ewe (Gbe; Ghana, Togo), Japanese, Lao (Tai-Kadai; Laos), and Yucatec (Mayan; Mexico). The findings will be compared to proposals in the recent typological literature (e.g., Song, 1996). A set of 10 variables will be proposed, all of which have been shown to potentially influence the perceived simplicity or 'directness' of causal chains, and through it the complexity of linguistic representations.

What makes the difference? Content effects as moderators of cross-cultural variability

Annelie Rothe-Wulf, Gregory Kuhnmünch, Andrea Bender, & Sieghard Beller

Although causal cognition in the physical domain is regarded as invariable to culture, recent research yielded complex patterns of causal attribution within and across cultures for various physical events (Beller et al., 2009; Bender & Beller, 2011). One candidate moderator for this variability is the way in which people construe the content of the event. We asked Tongan and German participants to assign causation to entities involved in a range of physical events. The entities varied along several dimensions such as concreteness, consistency, or physical type. Content effects emerged in both cultural groups and partially moderated cultural differences. In addition, we observed culture-specific patterns, indicating the importance of culturally relevant concepts.

Causes of illness – What do different types of causes explain?

York Hagmayer & Ronja Rutschmann

Research on lay theories of illness in anthropology and psychology investigated the types of causes people believe in. These causes explain why illness (rather than health) occurs and which type of illness happens under certain conditions. However, research on the questions patients ask indicates that patients and their relatives also want to know why the particular person (rather than another person) was affected and why the illness occurred at this particular point in time (rather than sooner or later). It is an open question whether and which types of causes provide an explanation to these inquiries. We propose a classification scheme of different types of causes with respect to the explanations they provide. We argue that many so-called supernatural causes explain which person is affected at a particular point in time, while many natural causes like somatic and environmental conditions do not. This may explain why people in many cultural groups believe in supernatural causes.

The causal cognition of wrong doing: Incest, intentionality and morality

Rita Astuti & Maurice Bloch

Anthropologists have claimed that, in certain non-western societies, people ignore whether an act of wrong doing is committed intentionally or accidentally. To examine this proposition, we look at how Malagasy people respond to incest. While they do not seem to take intentionality into account in the specific case of incest, when they reason about other types of wrong doing the role of intentionality is well understood. We therefore argue that, when people contemplate incest and its consequences, they simultaneously consider two quite different issues. Using the insights we derive from this Malagasy case study, we re-examine the results of Haidt's (2001) psychological experiment on moral dumbfoundedness. We suggest that the dumbfoundedness that was documented among North American students may be explained by the same kind of complexity that we found in Madagascar. In light of this, we also note the limitations of anthropological methods and the benefits of closer cross-disciplinary collaboration.

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