UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Situational Interests and Meaning

Permalink

https://escholarship.org/uc/item/9m45v5qv

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 29(29)

ISSN

1069-7977

Author

Cruciani, Marco

Publication Date

2007

Peer reviewed

Situational Interests and Meaning

Marco Cruciani (cruciani @form.unitn.it)

Department of Cognitive Science and Education, 5 via Matteo Del Ben Rovereto, 38060 Italy

Keywords: determining of meaning; interest; decision; cognitive context; social network; conflicting linguistic interaction; semantic agreement.

The Problem

In different situations of life, both common and institutional, it happens that some people negotiate the meaning of terms and sentences. This negotiation occurs both in situations where it is necessary to resolve controversy (e.g. in law courts) and also when there is no strong reason or apparent motivation present (e.g. in pub). But if the meaning is conventional, then why do we negotiate it? Is it not enough to refer to the conventions?

Domain of Research

The research investigates the meaning negotiation processes. In particular, negotiation processes produced by agents who are collaborative (contract), but then they become conflicting (controversy). The interdisciplinary plane of research is composed from several disciplines: sociology of knowledge, philosophy of language and knowledge, logic, theory of decisions and artificial intelligence. The case-study concerns contracts of employment, in particular ambiguous clauses.

The Kind of Approach: The Problem of Plausible Meaning as Problem of Decision

The problem of meaning, namely the problem of determining the 'correct' meaning of a sentence, is a key topic in the study of language and linguistic processes. The kind of approach that we believe plausible to the problem of meaning in meaning negotiation processes turns on the idea that to determine which is the *plausible* meaning we must have recourse to a decision. In our view, this decision is founded on what the agents take to be their interests (Cruciani, 2006).

Outline of the Poster

In the first frame: *Theoretical view*, some fundamental concepts are sketched out. We relate them with respect to some disciplines. In the second: *Case-study: ambiguous clause*, we report a real case: an ambiguous clause and the kind of dispute. In the third: *Features of a model: ordinary tools are not powerful enough*, we show how dictionaries, encyclopaedias and knowledge domain are not effective in determining some meanings (Eco, 1997; Marconi, 1997). In the fourth: *Interest and decision*, we propose the main thesis of the research, and preliminarily we sketch out the notion of relation between interest and meaning (via preferences). In the fifth: *How interests are socially connected to meaning*,

we consider a certain kind of social dynamics. These work on meaning, but are driven by underlying interests (Latour, 2005). We sketch out the connection of a local network of social relations, produced by certain social dynamics, with the determination of a referent for a contract's ambiguous sentence. In the sixth: Features of a model: interest, preference and choice, we describe the individual process of choice of meaning using some formal concepts from decision theory - e.g. relation of preference (Myerson, 1991; Colombo, 2003). In the seventh: Knowledge representation, we present the Theory of cognitive contexts. The cognitive context is viewed as partial and approximate theory that an agent uses to resolve a problem in a specific situation. This approach captures the compatibility between different representations of agents with respect to the same sentence, also when there is epistemic asymmetry between agents (Giunchiglia, 1993; Bouquet, 1998). In the Semantic agreement we present a modified version of the model Semantic coordination (Bouquet & Serafini & Zanobini, 2003; Zanobini, 2006) adding a strategic level in linguistic interaction, because in the case-study interests are conflicting.

References:

- Bouquet, P. (1998). Contesti e ragionamento contestuale. Il ruolo del contesto in una teoria della rappresentazione della conoscenza. Pantograf: Genova.
- Bouquet, P. & Cruciani, M. (2004). Il problema del ragionamento su azioni in intelligenza artificiale. In Ferrari G., (ed.) *Profili multidisciplinari delle teorie dell'azione*. FrancoAngeli: Milano.
- Bouquet P., Serafini L., Zanobini S. (2003). Semantic coordination: a new approach and an application. *Proceedings of the International Semantic Web Conference*, 130-145. Springer: Berlin, Heidelberg.
- Cruciani, M. (2006). Interessi e significato. In *Proceedings of third Italian Conference of Cognitive Sciences*, Erga: Genova.
- Colombo, F. (2003). *Introduzione alla teoria dei giochi*. Carocci: Roma.
- Eco, U. (1997). Kant e l'ornitorinco. Bompiani: Milano.
- Myerson, R. B. (1991) *Game Theory: Analysis of Conflict.* Harvard University Press: Cambridge (MA).
- Marconi, D. (1997). *Lexical competence*. MIT press: Massachusetts.
- Latour, B. (2005), Reassembling the social: an introduction to actor-network-theory. Oxford: University press.
- Giunchiglia, F. (1993). Contextual reasoning. *Epistemologia,* special issue on I Linguaggi e le Macchine, XVI:345–364.
- Zanobini, S. (2006). *Semantic coordination. The model and an application*. Phd dissertation, Dept. of Information and Communication Technology: University of Trento, Italy.
- The current research is supported by European Network of Excellence "KnowledgeWeb" FP6 507482.