

Parallel Session 28: Discourse analysis contributions to PCST Study

SCIENCE IN THE PRESS: PROBLEMS AND POSSIBILITIES OF RECONTEXTUALIZATION

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Abstract

Recent studies on the public communication of science in the press have stressed not only the increase of science news but also the singularities of this kind of communication. The approach advocated in this presentation suggests that the analysis of the precise linguistic formulations in texts can provide insight into, and thus improve the practices of popularization. The analysis of our data shows that there are different types of recontextualization: on the one hand it means that journalists introduce an orientation in their discourse through the citation of different voices; on the other hand it means to relate scientific results to a social situation where the focus is on personal, economic, social and political consequences. Such science news is in general well understood by the readers. And finally, contextualization involves providing information about technical aspects, generally difficult to understand for ordinary people. These are the contents that have to be explained through various strategies, in order to bridge the epistemic gap between what the scientific community knows and what non experts know.

Keywords: discourse, popularization, newspapers, language, recontextualization citation, explanation

Text

Discourse analysis focuses on the study of the *use* of language in *context* (Calsamiglia & Tusón, 1999). This approach is clearly distinct from the grammatical study of the structures and forms of language, which abstracts from context and speakers. In discursive linguistics the facts of language are observed and described within texts (understood as units of communicative interaction). The position, aims and involvement of writers with their own text and with their readers is inferred from what may be considered the conscious or unconscious choice of linguistic units at various levels; from the choice of semantic structures or syntactic constructions, the organization of the text and rhetorical resources, to their adaptation to communicative genres and channels, within the framework of the interaction between writer and reader.

Popularization discourse, a substantial component of science communication, constitutes itself on the basis of an asymmetric relationship: the communicating subject, who has access to the knowledge in the field of science, aims to interact with a non-expert audience which does not have such knowledge. With its popularizing practices the world of science (knowledge expressed and communicated within the scientific community) opens itself to the world of everyday experience and of social life. From a communicative point of view this is a particularly interesting case of knowledge transfer and

adaptation. During the last years, more and more studies in this perspective have aimed to describe the specificity of popularization discourse (Jacobi, 1999; Moirand, 1997; Ciapuscio, 2000; Myers, 2003). In this framework we make use of the concept of *recontextualization* in order to account of the linguistic-rhetorical treatment of scientific objects and authors in each communicative situation. In each case we encounter a distinct legitimacy as to the function and value of the linguistic units selected for communication. In this presentation we base ourselves on the results of a study of two widely reported cases in the written press (Calsamiglia & Cassany, 2001); Calsamiglia & Lopez Ferrero, 2003; Calsamiglia & Van Dijk, 2004): that of the “mad cow” disease (1996) and the announcement of the sequencing of the human genome (2000).

In the case of Bovine Spongiform Encephalopathy, we studied the way relevant discourses appeared in the press, e.g., the way journalists cite scientists and other social actors. Results show that scientists form a minority, far behind other social actors such as politicians and representatives of health and civil organizations. Moreover we studied in detail the structures of the passages preceding cited words, through which the author uses the voice of a social actor. It was observed that the writers present voices of different kinds and that their role is important because of (a) their choice of social actor, (b) their assignment of a communication verb, (c) their different identification of each social actor. Thus, the role of journalists shows through their introduction of citations with the veiled aim to steer the interpretation of their readers.

In the case of the sequencing of the genome, we focused our attention on another crucial aspect of science communication: explanatory resources. We observed that in the presentation of the sequencing of the human genome two contextualization modalities are activated; the most widely used relates scientific results with its consequences for people’s health, with economic and political perspectives, with ethical issues, with the ups and downs of the history of science and its actors, etc. Least used is the form of contextualization that we paid attention to: how is technical information explained to the readers in such a way that they understand the world of contemporary genetics.

The progress of these studies allows us to formulate some questions and thoughts about the role of popularization and in particular about its protagonists. If it can be shown that the role of the communicators is to put the advances of science into a socially relevant context, then their writing is not innocent and neutral, but rather contributes actively to the public presentation of new social representations (opinion, conceptualization). The selection of their quotations corresponds to a value scale; these citations can no longer be considered only as a way to avoid responsibilities or to enhance credibility, but also as a presentation of voices that argumentatively orient their own discourse.

As to the contextualization of scientific events, the new knowledge is didactically presented (through explanatory resources such as synonyms and metaphors) in a way that corresponds to cognitive functions that play a role in the introduction of new knowledge in relation to assumed previous knowledge. But the fact that this type of contextualization forms only a minor

part of contextualization when compared to sociopolitical contextualization suggests that knowledge remains very approximate. Are these inexact concepts necessary for the social circulation of new knowledge or do we have to intensify the explanatory endeavors?

Finally, my position with respect to the role of science communicators is that they must be *creative* and *involved* with the particular social context as well as *adapt* themselves subtly to each communicative situation. Their aim should be to achieve an approximate or basic technical knowledge which allows people to operate in social life in a piecemeal process of conceptual construction that cannot be realized at once.

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