

**Parallel Session 17: Scientist and science institutions as PCST agents: responsibilities.**

**THE SCIENTIFIC COMMUNITY AS A SOURCE OF INFORMATION ABOUT THE *PRESTIGE***

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**Abstract**

The scientific community as a source for information on the *Prestige* oil spill in Galician journals is discussed. All environmental news were indexed in a database as a part of a wider study. This paper analyses the percentage of sources from the scientific community; the content of the scientists' statements, the support for their claims and their role in the media communication. The sources from the government outnumber the scientific voices, so the scientific community is not the main source of information. The transformations in the discourse are also analysed.

**Keywords:** Press communication, scientific community, transformation of discourse.

**Context and objectives**

The scientific discourse experiences transformations, from science reports to vulgarization in journals and other media (Jacobi, 1999). When the object is a catastrophe of great impact, the number of voices besides the scientific community increases. The case studied is one of such catastrophes: the *Prestige* oil spill which hit the Galician shoreline from November 2002, causing substantial ecological damages and social commotion. The oil spill had great impact on the Galician media: 2.671 from 8.084 environmental news in 2002 (Agraso, Eirexas e Jiménez, 2003).

The objectives of the study are:

- 1) To identify the proportion of sources from the scientific community in the press information about the *Prestige*.
- 2) To analyze the content of the scientists statements and the support for their claims.

- 3) To analyze some cases of transformations in the scientific discourse such as: reformulation, language changes or image use.

## **Methods**

Data are drawn from a study about the coverage of environmental news in newspapers (Jiménez, Agraso e Eirexas, 2003). All news are indexed in a database. The object is the study of the *sources*, understood as individuals, institutions, documents or other media explicitly quoted. Four categories were established:

-Journals: including periodicals and bulletins.

-Press agencies and other media.

-Institutions: Government offices, research institutes, universities (as entities, not as individuals).

-Social actors and expert voices: either from scientific community, or from NGOs, associations or civical platforms.

For the first objective, the sources in each category were sorted according to their origin in the scientific community or not. For objectives two and three, 65 files related to the *Prestige* were selected, which reflected the scientist's voices. From these, six were chosen for in-depth analysis. Jacobi's (1999) frame was used for studying the transformations.

## **Results: weight of scientific sources**

Two types of primary sources were analysed to explore the proportion from scientists: social actors & expert voices (73,4%) and institutions (14,8 %), because in press agencies (11,5%) there were none, and the journals (0,3%) were not significant.

From the *expert voices*, the majority (55%) correspond to political or government sources, then sailors and other directly damaged by the spill (17%), and only a 11,5% from the scientific community.

From the *institutions* also the government offices are the most quoted (74,5%). It is worth nothing that the foreign (Portuguese or French) research centres are quoted three more times (11,2%) than the Spanish Oceanographic and Marine Research Institutes (3,6%). The sources from Universities (1,9%) are very scarce.

## **Results: content and support of the statements**

The experts' statements and supports revolve around four issues:

- a) The decision about sending the ship off the coast: some criticizing it because because of the spreading angle ("fan effect") affecting a longest coastline (V. Urgorri), some supporting it, based on the difficulties of transferring the oil.

b) The situation of the sunken hull: the risk of oil coming out or not from the ship; turning or not solid, or the risk of corrosion. Some scientists predicted that the oil will not leak because its state will turn solid at this temperature and because the hull will not suffer corrosion due to the lack of oxygen. Others predicted that it would leak, based on empirical data from other sunken hulls.

c) The consequences of the spill in the environment: the degree of damages in the ecosystems and food webs. It seems to be an agreement on ecological damages, but one of the experts claims that oil is not as toxic when spilled on the sea as would be on the air.

d) The recovery of damaged areas: differences about recovery time from 6 months (Ministry of Environment) to more than ten years, and methods.

### **Results: transformations of the discourse**

The transformation include:

*Lexical reformulations:* two types (Jacobi, 1999), paraphrases and substitutions of specific terms. Some instances: explaining tar (Spanish “fuel”) as a “thick and viscous oil” (Spanish ‘petróleo’), referring to concrete as a lasting solution for the hull, because it does not “rot”, instead of “disaggregate”; or to damaged animals as “sand hoppers” instead of amphipods.

*Analogies and metaphors:* some current metaphors used in scientific communication can be misleading when the “label” function of language takes over interpretation (Sutton, 1992), for instance “food chains”. Other clarify the meaning, as “fan effect” or “to asphalt beaches”. An original analogy is the comparison of the coast recovery to wood fires.

### **Discussion: features of scientific discourse in the media**

The first issue arising from the data is the scarce frequency of sources from the scientific community, compared to institutional and government sources, despite the great involvement of Galician research institutions since the first days of the spill.

There are great differences among the statements: some seem supported on available empirical evidence or theoretical knowledge, while other ignore it, as shown in the controversies about the oil freezing point.

About the transformations of the discourse, there are different types of it that seem to serve the purpose of a better understanding for the public.

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