Parallel Session 13: Lessons on PCST history

POPULARIZING THE HISTORY OF SCIENTIFIC EXCHANGES IN THE "PERIPHERY"

Carlos Acosta and Nicolás Cuvi

PhD students, Centre d'Estudis d'Història de les Ciències (CEHIC), Universitat Autònoma de Barcelona, Edifici Cc, 08193 Bellaterra, Barcelona, España. http://www.uab.es/cehic/, E-mail: *geo_acosta@hotmail.com* ; *traba_lenguas@hotmail.com*

Abstract

We present a popularization project in the history of contemporary science, that to the publication of the book Ciencia entre España e Hispanoamérica. Ecos del siglo XX (available at ~~www.uab.es/cehic/proj/fecyt.htm~~). We discuss our experience as science communicators in an academic institution, paying special attention to methodological issues and to the cross-fertlization between science communication and the history of science. We also question the idea that knowledge created in peripheral regions is not relevant.

Key words: history of science communication, scientific exchanges, peripheries in science and technology

Text

Introduction

In April 2002 we submitted to the Fundación Española para la Ciencia y la Tecnología (FECYT) a project that aimed at popularizing scientific and technological exchanges between Spain and Latinamerica in the 20th century. We wanted to make known both the history of science and the knowledge produced in purported peripheral regions to modern and contemporary science. We did not share the idea that the history of science and peripheral knowledge were largely irrelevant, even though they are often attractive enough to science communicators.

The project was carried out during the first half of 2003 by three people: a Catalan physicist and historian of science at the Universitat Autònoma de Barcelona, and two PhD students of the Programme in History of Science at the same university (a geologist from Colombia and a biologist from Equador) who had also trained as science communicators.

The sources

First we had to select our sources. Historians often distinguish primary sources (originating in the scientists to be studied, such as manuscripts or published papers) from secondary ones (the product of the work of historians). Time constraints and the availability of secondary information made us choose secondary sources for most of the 20th century, and primary ones for recent years, above all the 1990s. We drew mostly on Spanish journals and books in

the History of Science, and we also got advice and information from a number of experts.

In search of a structure

We had to settle on the book's structure, and several alternatives were considered. We discarded a chronological structure —too lineal or even traditional. To discuss one knowledge area after the other would have excessively fragmented the narrative, and we feared this would also be the case of a geographical structure. We also considered priorizing the forms of exchange (letters, journals, exhibitions…), but this we found problematic too.

In the end we decided to focus on the protagonists of the exchanges, people and institutions, arranged in chronological rather than geographical order. We discussed in separate insets additional information that did not fit this structure, such as bibliometric information, specific exchange projects or key institutions. Even so, we had to devote separate chapters to two substantial issues: the role of the Spanish language, and the exchanges prior to 1900.

Academic versus popularization interests

It is widely admitted that academics and science communicators do not write for the same people. The former address their peers, the latter the public at large. We think academics should pay more attention to lay people, and also that science communicators have much to learn from academics.

Our project built on such interaction of interests: it was carried out within an academic history of science center, by people with experience in science and science communication. Yet some tension inevitably appeared, particularly in three regards: style, reference to sources, and conclusions.

As for style, we were convinced it had to be both attractive to a wide public and rigorous. We used fictional situations such as interviews or travels. We also used analogies, metaphors, and a prose rethorical enough to sustent interest in the story, even though the academic partner had to be convinced this style was convenient. The reception accorded to the book by scientists and historians of science suggests that we managed to avoid academic technicisms.

The second problematic issue was how to refer to sources. We let historians talk by themselves, and thus made ample use of literal transcriptions. The problem was then how to give the references without burdening the text. To make the text as "clean" as possible, we placed footnotes at the end, and we also limited references to works quoted in the text, referring to the rest of our references in a complete bibliography that is available , together with the book, in Internet.

The third issue had to do with the book's conclusions. The science communicator in us was happy enough with the histories, conclusions were for him built in the text. However, the academic partner could not do without conclusions. In the end we did draw some conclusions and found that a valuable addition to the work, even though aware of their provisional status and counting with the professional historian's indulgence.

Conclusions

Scie nce popularization tends to focus in recent findings, particularly as they regard biomedicine in advanced countries —those at the core of contemporary science. This has to do above all with the need to have an impact, but if we grant that the perception of such an impact is socially construed, we can also grant that the public's awareness and interest could be increased, if only we provided the public with more resources.

We need to broaden the scope of knowledge that gets into the media, to take into account and value knowledge from «peripheral» regions. This is unlikely to harm science communication, while leaving this knowledge aside casts a shadow over the media's agenda and raises suspicion about their interests in neocolonial policies. New technologies no longer leave the excuse that information is not readily avalilable.

All regions produce knowledge. Instead of talking about technological backwardness, we need to let each region create each own knowledge and technology, those best suited to its environment, less dependant from other regions, most able to sustain its basic necessities.

This kind of popularization can be done from the media and academic institutions. A balance must be kept, in historical matters, between the public interest on one hand and academic rigour on the other, and this in turn demands paying close attention to style and the use of references. The historian may profit from rethorical figures, and the communicator may have to provide explicit historical conclusions. Our experience shows that a positive feedback can be established between history of science and science communication.

We also think that information should be freely available. Private handling of information damages both science and science communication. We edited our work, but we also placed it in Internet so that anyone can access it.The reader may also find there our historical conclusions (p. 116-121, at www.uab.es/cehic/proj/fecyt.htm).

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