

Aurélien RUELLET

This paper focuses on some methodological problems that could occur when one tries to address the issue of dedications in scientific books in their relation to the social history of the learned world. Dedications were a very common feature of the early-modern print culture. They are often seen as a mere rhetorical piece of courtly behavior, insincere and sycophantic. It largely explains why they have been dismissed as a reliable source for social history.

Dedications, however, were used in a variety of ways and addressed to a wide range of potential patrons and protectors. As other paratextual devices (epistles to the reader, prefaces), they could serve different purposes, from self-fashioning and advertisement to the quest for epistemic legitimacy.

From a corpus of mathematics books, I try here to identify several strategies embedded and revealed in dedications. They were an important part of the publishing strategies. In a period of turmoil and Civil War, dedications revealed not only political allegiances, but also networks of fidelity and forms of sociability. Dedicatory epistles give clues for identification of the actors of patronage and for discussion of their action. I will try to sum up what might be said and what might not be said of this practice.

Dr Benjamin WARDHAUGH

The *Compendium musicæ* of René Descartes appeared in Latin shortly after the author's death in 1650, apparently seen through the press by Frans van Schooten. Four manuscript copies of the work already existed, and the printed edition attracted criticism for its alleged inaccuracy and obscurity. Translations into English (1653), Dutch (1661), and French (1668) soon appeared, claiming to present Descartes' meaning more faithfully: to this end the English and French versions both contained commentaries as long as the text itself.

These two versions enact very different models of what a mathematical translation should be, who it is for, and how it should be read. The English version modified Descartes' diagrams in crucial ways and undermined his mathematical ideas in a long appendix setting out an alternative view of the mathematics of music, based on arithmetic rather than geometry: it was aimed, apparently, at musical practitioners who could not read the Latin original. The French version contained a commentary in Latin, integral to the text, and it aimed squarely at learned elucidation. Neither version seems to have been very widely read, since in fact musical mathematics remained almost exclusively the concern of the university-educated, who could read Descartes in Latin. Each was superseded in the twentieth century by a fresh translation claiming (again) to be closer to the original.

These two translations thus present contrasting models of how to write about mathematics, and how to appropriate a text from a learned language into a vernacular. Yet each creates something substantially new from Descartes' text, producing, in a situation in which textual 'fidelity' seems to have been a pliable concept, a set of texts which overlapped but did not consistently talk about the same things.

Frederique AÏT-TOUATI

Long before seventeenth-century advances in astronomy, the exploration of outer space occurred predominantly within the domain of literature. When Johannes Kepler and Galileo wrote descriptions of the moon's surface, the only forerunners of these documents were works of fiction. The development of seventeenth-century cosmological literature thus depended on both contemporary scientific discoveries and its literary predecessors, including both lunar voyages and the genre of travel narrative that flourished during the Age of Discovery. Cosmological literature reflects this multifaceted heritage. By studying some of the optical figures and techniques used by Kepler in his *Somnium* (1634, posthumous), this paper seeks to understand the relationship between two seemingly contradictory aspects of the work. Lunar travel indeed allowed the writer to experiment, fictionally, with the proposition: how would the phenomena occurring in the heavens appear to an observer stationed on the moon? The narrative tested Kepler's astronomical hypothesis by displacing the perspective. This combination of literary and scientific content infused astronomical narratives with a delicate relationship between truth and fiction.

Liliane CAMPOS

Mathematics on stage in Paris and London: a comparative study of
Jean-François Peyret's
Le Cas de Sophie K. and Complicite's *A Disappearing Number*

In recent years the discourse of science has appeared increasingly frequently in French and British theatre. The existence of a common trend can be observed in the similarities linking Jean-François Peyret's *Le Cas de Sophie K.*, produced at the Théâtre National de Chaillot in 2006, and Complicite's *A Disappearing Number*, produced at the Barbican Theatre in 2007. Both these plays explore the beauty of mathematical thought through marginal, romantic figures of the history of science: Sophie Kovalevskaya in *Le Cas de Sophie K.* and Srinivasa Ramanujan in *A Disappearing Number*. They were both produced by interactions between artists and researchers, and their thorough integration of mathematics illustrates the new attitude towards science which can be observed in contemporary theatre. Whereas 20th century representations of the scientist, like Brecht's *Life of Galileo*, often focused on political and social issues, in these creations political questions have been superseded by an aesthetic and epistemological enquiry into the language of science.

The abstract, non-spectacular nature of mathematics may seem a surprising choice of scientific content for a theatre practitioner. What affinities does the discourse of mathematics have with that of the theatre? Both Jean-François Peyret and Complicite's director Simon McBurney suggest that they perceive mathematics as an imaginative science, and that its very abstraction brings the mathematical world close to that of the theatre. Their choice of references highlights this poetic view of science, since Sophie Kovalevsakaya was a poet as well as a mathematician, and Complicite's text is largely based on G.H. Hardy's theory of mathematics as a creative art. However, I would suggest that it is necessary to look beyond this focus on imagination as the common ground between the two cultures, and the aestheticizing of science which it invites. The aim of this paper will be to highlight the structuring function of mathematical discourse within these creations, and to argue that these practitioners' interest in mathematics is not purely aesthetic, but also the means of a reflection on the theatre form itself and on the kind of knowledge which it produces. I will show that these plays use mathematical language to shape their dramatic content, and that in doing so they paradoxically highlight the irrational, uncertain elements within mathematics. It seems that the function of scientific discourse is no longer, as it was for Brecht, to provide the theatre with structures of objective analysis, but rather with the basis of open-ended, fragmented enquiries. A vision of theatrical enquiry emerges which is no longer equated with rational explanation, but with the fragmented forms of "scientific dreaming" in Peyret's work and of "patterning" in Complicite's. Finally I will analyse the concept of embodiment as it is used by Peyret and McBurney, and ask to what extent their incursions into mathematical discourse allow them to reformulate the relation between physical and verbal languages on stage.

Daniel MITCHELL

Shared values and individual style, or a new way of interpreting late 19th century French physics

Nineteenth-century French science is something of an enigma. From a position of dominance at the beginning of the century, it supposedly declined from 1840 onwards until, by the end, French scientists were marginalised in most areas of active research. In physics, for example, this is manifested in the absence of a French contribution to electromagnetism and statistical mechanics.

Historians familiar with trans-national perspectives, however, will instead ponder how peculiarly French political, institutional and intellectual contexts influenced the opportunities and objectives of leading French 'marginal' *physiciens*. In other words, they will begin by addressing such a community on its own terms.

My primary concern is with the values of the French community of *physiciens* and the way in which these guided the choice and content of research. I firstly consider several principal factors that served to define and sustain these values:

- Education at an elite Parisian *lycée* followed by the *Ecole Normale Supérieure*
- Strong sense of tradition and the achievements of French predecessors
- Rigid intellectual and institutional separation between mathematical and experimental physics

Having identified the sources of this community's coherence, I give an example of how its values manifested themselves in Gabriel Lippmann's electrical experiments. The way he and his colleagues at the Paris Faculty of Sciences sought to fit related foreign research into a French mould provides a good example of how information may be transformed when transferred across disciplinary and national boundaries.

Pierre TEISSIER

“Does Solid State Chemistry dissolve in the Channel? Disciplinary boundaries and shifts in language”

Recent science is often described as international and interdisciplinary. Indeed, after the representation of science as an endless “network” had been popularised, boundary issues seemed to be irrelevant in history of science. However, several studies stressed the importance of social boundaries to understand sciences and techniques after World War II. In this respect, Solid State Chemistry constitutes an amazing case to investigate. Broadly speaking, it can be defined as the chemical synthesis and the physical study of solid compounds in order to produce new industrial applications.

This paper outlines three stories by choosing three scale-foci: an international level, a national one (France versus the UK), and a case study (of fluoride glasses). From a Western point of view, Solid State Chemistry emerged as a sub-discipline of Chemistry during the 1960's. The path was quite common for history of science: editorial specialisations, organisation of international conferences, and legitimisation by learned societies. When a young French historian decides to cross the Channel and to venture a French/British comparison, things become much foggier. National scientific communities differed from each other by at least three main characteristics due to historical, political, and disciplinary specific contexts. Consequently, linguistic misunderstandings were commonplace and every expression could not be translated. Finally, the fluoride glass's research field allows to follow more carefully some (French/British) moving actors between academy and industry and to try to say what Solid State Chemistry meant in both cases.

As a conclusion, each of these stories puts into evidence some linguistic, identity, or disciplinary shifts when the national border is crossed. The cultural gap induced by this trip gives the opportunity to think about the misleading “universality” of science and the importance for the historian to make conscious methodological choices, especially of a well-defined object of study.

Dr Aude FAUVEL

Listening to the voice of the mad.

Anthony B. North Peat and the “*Littérature des aliénés*”

Since Roy Porter's seminal article ('The patient's view: doing medical history from below'. *Theory and Society*, 1985), British historians of medicine have paid more and more attention to the patients' point of view. Historians of psychiatry were particularly interested by this change of standpoint, which is quite understandable since here the way the patients interact with their physicians, the way they talk, write, express their ailments, accept or reject medical authorities..., directly influences the shaping of the medical discourse. Patients' writings are also used to gauge the 'real' value of a medical approach to mind's turmoil. For some researchers, if psychiatrists are not 'crooks' as some said in the 19th century, they still appear as agents of social normalization, having this tendency to transform into a medical entity any eccentric behaviour that does not fit into the general social, political or cultural framework. For others, even if psychiatrists have had their wanders and their faults, yet they are the only ones who have been able to say and do anything of value to help the victims of mental disorders. In this context, listening to the insane appears as a mean to distinguish between myth and reality, between the claims of philanthropy and the reality of ill-treatments, but also between the images of miserable lives in dreary asylums and the reality of a much more complex and alive microcosm.

But whatever the uses of the various materials left by patients, one thing is sure: on this side of the Channel, it seems obvious that historians have something to do with the voice of the mad. The situation is totally different in France, where lunatics are still the greatest absents of history and where all the debates I mentioned above have thus not taken place. Foucault may have criticized the way psychiatry silenced the mad, Gauchet and Swain may have pleaded for 'another history of madness' (*une autre histoire de la folie*), nevertheless they all mainly focused on the medical discourse and they all used the same kinds of archives. Why this discrepancy between French and British historiographies? One could say that it is the result of the French being unable to go past Foucault, which would partly be right. But in my opinion, this is also the reflection of a more profound difference between the French and the British cultures of insanity, a difference that is embedded in a long-term history that this paper aims to shed some light on.

Here, we will more precisely focus on the case of Anthony B. North Peat, discovering why in the 1860's this interesting individual – he was a British journalist who played an important role in Franco-British politics – was already unable to achieve his project of writing a cross-history of the French and British 'littérature des aliénés' (*literature of the insane*), considering that it was not possible to 'hear' the French lunatics. Nevertheless, if North-Peat could only achieve one part of his project – popularizing some British inmates' writings that he published and translated into French – he still is an interesting case of 'transfer', from the asylum world to the outside, from one country to another, thus showing that both national and disciplinary boundaries have to be crossed if we want to understand how our perceptions of the mad and of its history have been shaped.

Harry Y. J. WU

Who is Speaking for Whom in the History of Psychiatry? From a Cross-Cultural Perspective

Historiography of psychiatry is diverse not only in the aspects of its contents but also theoretical frameworks. The discrepancy varies with historical and geographical backgrounds. In the scope of European history, Foucauldian approach has become theoretical or methodological paradigm, although there had been disagreements. Michel Foucault had established a structure of clinical medicine, emphasizing the 'clinical gaze'. Nevertheless, Foucault also talked about 'speech', 'The clinical gaze has the paradoxical ability to hear a language as soon as it perceives a spectacle. In the clinic, what is manifested is originally what is spoken.'

It was once argued that writing the history of madness is an impossible project. However, with the paradigm shift in the historical studies from the 1960s, history from below, women's history, overseas history, visual history, etc., have gradually centred the stage of historical studies. Amalgamated with the emergence of post-colonial theories, historiography of medicine now has acquired novel and broad features. Themes and objectives concerned by this discipline have enriched the writings in the history of psychiatry. From a cross-cultural perspective, the role of language and 'speech' is more eminent than in a homogenous society. 'Speech acts' performed by subjects that engaged in cross-cultural psychiatry, I argue, reveal more complex deployment of power.

In this presentation, I want to focus on 'speech' in cross-cultural psychiatry. The cases provided are mostly the re-assessment of already-done studies and introduction to certain ongoing projects, including my own research. I will begin with Megan Vaughn's *Curing Their Ills*, and then several settings of colonial psychiatry. In addition, I will draw the scenario from the British Empire in the 19th century to Japanese Empire at the beginning of the 20th century, and finally the global psychiatry after the Second World War.