

SHESL-HTL 2014 Conference

Models and modelling in the language sciences, humanities and social sciences.

Historical and epistemological perspectives

No description can avoid setting up classification operators, namely selecting relevant features and defining equivalence classes, and the language sciences provide very early illustrations of these operators, such as grammatical paradigms, parts of speech, etc. These operators are nonetheless diverse, ranging from simple taxonomy to mathematical formalization and metadescriptive concepts (e.g. constituent analysis in linguistics). This diversity leads to the usual typologies (isologic, analogical, abstract modelling etc. Cf. Achinstein 1968, *Concepts of Science. A philosophical Analysis*) being overstretched fairly quickly.

Furthermore we must note that the conceptual as well as terminological use of metatheoretical notions – such as *model* and *modelling* – is often intuitive: any ordering of data will be attributed to a model, and the formalization of pre-organized data will be seen as modelling. The poorly differentiated use of these terms would be inconsequential if the humanities and social sciences were not once again feeling the pull of scientism. In the language sciences, this pull takes the form of naturalism at a time when progress in neuroscience appears to be bringing ‘the real’ within reach. Elsewhere this trend takes the form of superficial mathematical formalization when it is simply used to formally encode raw data. As a result it is not surprising to find the humanities pulled towards literature and societal phenomena. This sets up the humanities against positivism, bringing up the outdated argument of "sciences which ignore the subject". This accusation that the humanities do not have any true modelling serves as an argument to invalidate their methodology, and they are then faced with either becoming experimental sciences, or being labelled "pseudo-sciences".

The attitudes described above are based on a misunderstanding regarding the concepts of linguistics, the nature of social objects, their construction, and where to set up the boundary between spontaneous metadiscourse by the actors and their research-based modelling. These attitudes also signal a probable insecurity of these fields with regards to their own tools and objects. This insecurity is not limited to the language sciences, and the progressive separation of history and philosophy of science is probably another, indirect, clue to this situation. Furthermore, by falling back on erudition, scholars who truly know their field are freed from

having to judge their own methods. The time has come for the language sciences and indeed all the humanities to reclaim their objects, something which is only possible by reembracing history and epistemology and by answering the question of what constitutes an object in these fields and how it is modelled. The language sciences have much to learn from other humanities and social sciences because this question has become central to other fields such as sociology and geography.

Each disciplinary field has attempted to build, for reasons both conjectural and heuristic, a specific relationship with modelling and its own historicity. The role of the transfer of methods, techniques and models between fields must be taken into account. Without going so far as the usual opposition between Natur –and Geisteswissenschaft, there is much to be gained from collectively reconsidering the concepts of model and modelling in the language sciences, the humanities and the social sciences. A survey has become necessary, addressing the following questions: what is a model? should this term be limited to a certain type of generalization? Have the humanities, or some of the humanities, developed specific types of modelling? How are the models produced, borrowed, abandoned? These questions should help return historicity to the heart of the philosophy of science, and, perhaps more directly, allow these fields to fully reclaim their objects.