ABSTRACTS

Journal Peer Review, Biases, and the Objectivity of Research
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The virtues and weaknesses of peer review have been widely examined in the literature (e.g., Cole 1992; Lamont 2009). However, philosophical discussions on the topic are scarce. This is puzzling as in many social epistemological theories (e.g., Longino 1990), peer review is mentioned as one of the central mechanisms for maintaining the critical scrutiny of expressed views and, thus, the objectivity of research. In this paper, I shall discuss journal peer review as a mechanism for differentiating reliable scientific work from inadequate projects and improving the quality of published work. I approach the topic by examining different biasing factors that have an impact on the outcome of peer review processes. I will argue that achieving the aims of peer review can be hampered not only by individual-level biases but also by institution-level mechanisms. Thus, I show how examinations of peer review process highlight the ways in which social factors are essential to maintaining the quality of science, and how the social context in which peer review takes place can either contribute to or work against controlling the biases that have an impact on review outcomes.

How trading zones may help solving communication problems in the sciences
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Since its dawn, modern science has been undergoing an increasing specialization and sophistication. No philosophical project for the unification of the sciences was ever effective enough in stopping or even slowing down that phenomenon. As result we have now a very fragmented scientific disciplinary landscape and perhaps worse we have deep problems of communication within particular sciences, between several sciences, between sciences and other non-scientific domains, namely the humanities, and between sciences and general society.

Communication problems are especially worrying because they not only undermine the cohesion of scientific disciplines, as also impede or retard the integration of scientific knowledge, and ultimately its progress, and destabilize the processes of knowledge transmission and sharing.

The main purposes of my presentation will be, then: (a) to examine the epistemic status of the so-called “trading zones” (a concept and expression crafted by north-American historian and philosopher of science Peter Galison in his 1997 essay Image and Logic, further explored in a sort of taxonomy of possible kinds of expert collaboration by Harry Collins, Robert Evans, and Michael Gorman in chapter 1 (“Trading zones and interactional expertise”) of the 2010 collective book (ed. M. Gorman) Trading zones and interactional expertise; (b) to analyze their creation procedures; (c) and to critically understand how they can be put to work as an efficacious tool to help solving the referred communication problems that are tormenting contemporary science.

Inconsistency Handling in the Sciences: Where and How Do We Need Paraconsistency?
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Ever since the pioneering papers by John Norton, Joel Smith, and Bryson Brown in the late eighties, inconsistency in science received considerable attention from philosophers of science (as witnessed, for instance, by Peter Vickers' recent book "Understanding Inconsistent Science"). This led, on the one hand, to downplaying the importance of inconsistent theories and, on the other hand, to the view that inconsistency handling in the sciences, if needed at all, is a matter of content, not of form. Following Norton and Smith, most philosophers of science now seem to agree that scientists, when faced with inconsistencies, avoid "logical anarchy" by a "content-driven control" and not by a "logic-driven control".

This is in striking contrast to the view of the "friends of paraconsistency". For decades, they have been claiming that the history of science shows numerous examples of inconsistent theories and that handling such theories requires a suitable non-classical logic. Should they now admit that, in their enthusiasm for promoting their tools, they may have been overrating the importance of inconsistencies in the sciences? Or, could it be that philosophers of science are missing something?

In the present talk, I shall first investigate into the possible reasons for the deep divide between philosophers of science and paraconsistent logicians. On the one hand, I shall argue (by referring to examples from the sciences) that inconsistencies in the sciences occur more frequently than Vickers and others admit, but that one has to look in the right places. On the other hand, I shall argue that paraconsistent logicians have not always been using the right kind of arguments to promote their tools. A second aim is to discuss the distinction
between content-driven and logic-driven approaches and argue that some content-driven approaches presuppose a logic-driven control.