

like most of our other concepts, a radial one, not characterized by necessary and sufficient conditions. I would not describe Shafer as re-unifying probability. I would say he is just reminding us what it is and has been since around 1660.

8. THE INSTITUTIONAL REUNIFICATION OF PROBABILITY

The diversity of statistics is one of its strengths. Any attempt to restore an hegemonous department of statistics could only harm the subject. Yes, let statisticians (those who identify themselves as such) again be more open, more willing to learn from other departments, more willing to think hard about the problems, both practical and conceptual, that arise whenever we try to reason with precision short of deduction, or to assess plans for deciding under uncertainty. If a department of statistics, frightened by the proliferation of its expertise, turns inward and dedicates itself to pure mathematics, it will lose its reason for existence. But statistics departments should not try to reclaim old territory. Let statistical thinking be done in many houses. Why should Shafer be so keen to “co-opt” people from other disciplines? Won’t “co-operation” do? Why should there be one department that provides all the basic teaching in

statistics? Contrary to the belief of Shafer and David S. Moore, statistics is not one of the liberal arts. It is part of logic, and logic, I remind you, is one third of the trivium of logic, grammar and rhetoric. I quite disagree with my own colleagues who want all students to take a basic course in logic and critical thinking in our philosophy department. I urge for others what I urge at home. Don’t try to claim everything for yourself. I teach an elementary course on inductive logic and probability, which is much enriched by the fact that some of the students have picked up a little statistics in pharmacy, in physics, in archaeology, in computer science. The friction is great. Had they all learned their little statistics in the same department, from the same teachers, I would probably quit teaching the course; I don’t want to teach serried ranks of bland and uniform young people.

There is all too much “reclaiming” in Shafer’s vision of his subject. Most departments of statistics at research universities grant the Ph.D. Would Shafer want us philosophers to reclaim “our” degree? Shafer is something of a philosopher (rather more than something, in fact). I am delighted that such a philosopher is located in a School of Business. I do not want to co-opt him but to learn from him—as I have always done.

Comment

David S. Moore

Glenn Shafer alleges that our discipline is in some disarray, not only institutionally but intellectually. He traces this disarray to the “balkanization” of probability and urges as a solution a conceptual reunification of interpretations of probability. In presenting his case, he offers a most interesting glimpse at the recent surge of work on the history of probability and statistics. How shall we react to Shafer’s diagnosis and to his proposed therapy? Subjectively, of course. For my part, I commend him for calling our attention to our history, accept with some hesitations his allegation of institutional disarray and remain unconvinced that whatever intellectual disarray (I would call it ferment) we face is a disease needing the treatment he proposes.

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OUR INSTITUTIONAL VITALITY

Shafer notes the extensive growth of both teaching and research about probability and statistics in other disciplines and the considerable contributions made by scholars in these fields. All true and all to the good. No fundamental intellectual method can be confined within a neat institutional framework.

The case of mathematics is instructive. Research that only the narrow-minded would distinguish from research in mathematics has long been carried out by scholars in many fields. A recent sample survey finds that over half of all students studying advanced mathematics are enrolled in courses taught outside of mathematics departments (Garfunkel and Young, 1990). Mathematics is simply too important to be left to mathematicians. Mathematics has undergone the fragmentation that Shafer laments institutionally as well as in research and teaching. This ought not to surprise us. The differentiation of once unified functions among diverse institutions is an essential