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A Pluralistic Approach to Interactional Expertise

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ABSTRACT

The concept of interactional expertise – characterized by sociologists Harry Collins and Robert Evans as the ability to speak the language of a discipline without the corresponding ability to practice – can serve as a powerful way of breaking down expert/non-expert dichotomies and providing a role for new voices in specialist communities. However, in spite of the vast uptake of this concept and its potential to fruitfully address many important issues related to scientific expertise, there has been surprisingly little critical analysis of it. We seek to remedy this situation by considering potential benefits of interactional expertise and the ways in which the current conception can – and cannot – realize those benefits. In particular, we argue that interactional expertise hasn't reached its full potential for addressing who ought to be involved in scientific research and decision-making, largely owing to an unnecessarily restrictive way of operationalizing the concept. In its place, we offer a broader, more pluralistic account of interactional expertise – one that is in line with the original spirit of the concept, but also captures the diversity that we see as being an important aspect of interactional experts and the value they can bring to the table.

1. Introduction

Scientists are faced with increasingly complex problems—such as climate change, poverty, and global epidemics—that require diverse sets of expertise from a variety of sources. Successfully addressing such problems often requires collaboration across disciplines and communities, involving local and specialist knowledge from those who may not conform to conventional notions of expertise. In order to address these challenges, it is crucial to have ways of identifying and legitimizing non-traditional forms of knowledge and expertise. Unfortunately, however, those with relevant expertise are often excluded from scientific research and decision-making processes. While in some cases non-traditional experts are willfully excluded or ignored, in other cases they are overlooked simply because of the difficulty in identifying, legitimizing, and involving expertise that isn't marked by the traditional education, training, or accreditation of the scientists involved. Fortunately, some sociologists and philosophers of science have identified these problems and begun to suggest ways in which we might address them.[1]

One of the more promising approaches to recognizing non-traditional forms of expertise is associated with a new research area called "Studies of Expertise and Experience" (SEE), developed by sociologists Harry Collins and Robert Evans. As part of this research program, Collins and Evans have introduced a new concept called 'interactional expertise' (IE), which captures the ability to speak the language of a discipline or area of specialist

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[1] See, for example, Wynne (1989); Epstein (1995); Collins and Evans (2007); Whyte and Crease (2010).

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knowledge in the absence of a corresponding ability to practice its tangible skills in the lab (2002, 2007).[2] This concept has received a substantial amount of attention in both theoretical and applied case studies, and has been leveraged to begin to recognize instances of scientifically relevant knowledge held by those who are not traditional experts in the field. While IE provides a powerful and valuable way of articulating an often overlooked type of expertise, we argue that (1) some of the ways in which it has been presented by Collins and Evans has led to it being construed in an unnecessarily restrictive fashion, and that (2) the concept can be broadened to capture the vast diversity of experience and expertise needed to address complex social problems. Furthermore, we argue that this broader notion of IE remains true to the original spirit of Collins and Evans' work.

To understand the definition of and vision behind IE requires revisiting initial work on the topic. When Collins and Evans first introduced the concept of interactional expertise in a 2002 paper entitled "The Third Wave of Science Studies: Studies of Expertise and Experience," the concept was quite broad, focusing on developing ideal categories for various types of experts. Using the example of sociologists of scientific knowledge as interactional experts, they defined an interactional expert as one who has "enough expertise to *interact interestingly* with participants and carry out a sociological analysis" (p. 254, emphasis added). They contrast this with what they call 'contributory expertise'—what we normally think of as traditional expertise—which they define as having "enough expertise to contribute to the science of the field being analyzed" (Collins & Evans, 2002). Later in the paper, they discuss the importance of interactional experts being able to speak the *language* of a discipline—in subsequent publications, this linguistic ability has become the centerpiece of their characterization of IE.[3]

As they developed the concept further, Collins and Evans also worked to operationalize it—to demonstrate what it would take for someone to "count" as an IE (Collins, 2004; Collins & Evans, 2007). They argued that since IEs had the ability to speak the language of a discipline—a skill obtained through immersion in the expert community—IEs should be able to "pass" as contributory experts; in other words, they should be indistinguishable from other CEs, even by CEs themselves, in conversation. Collins and Evans couched this in terms of passing a Turing-like test (which they later refer to as the 'imitation game'), in which an expert serving as a judge would pose questions to a contributory expert and an interactional expert, where their identities are hidden, and receive answers from each of them. If the interactional expert were able to avoid being detected as a non-expert, they would be said to have 'passed' as a full-fledged IE. Since introducing the imitation game as a way of operationalizing IE, most of Collins and Evans' subsequent work has continued to take this as a central indicator of whether IE has truly been obtained.

While there are merits to this way of operationalizing IE (including providing a way to explore the linguistic and tacit components of expertise, as well as a practical tool for assessing the presence of IE), we argue that this conception of IE is too narrow and risks excluding those who would fit the spirit of the concept (i.e., the ideal types as set out in Collins & Evans, 2002) but perhaps fail to pass a real-life imitation game. Although it's possible to take the imitation game as merely a heuristic not intended to be used in practice, we argue that a more descriptively adequate, pluralistic, and interesting account of IE can be developed by ensuring that the imitation game doesn't become a singular normative or defining feature of IE. Thus, we call for a more flexible conception of IE, one that can capture the heterogeneous instantiations of the concept and is better able to recognize a diversity of expertise. As we argue, including a more diverse set of expertise can lead to better scientific knowledge, as well as more democratic technical decision-making.

In this paper, we develop a pluralistic account of interactional expertise that is both in line with the original spirit of the concept and that attends to the diverse types of IEs that we think exist. We begin, in Section 2, by offering a more detailed account of the concept of IE and the ways in which it has been developed. Next, in Section 3, we identify what we take to be potential benefits of the concept of IE, which include identifying and legitimizing non-traditional experts; improving the uptake and application of scientific research by stakeholder communities; and improving the quality of scientific work by including new perspectives and social locations in knowledge production. In Section 4, we go on to identify the reasons that the current conception limits the realization of these benefits, emphasizing the role of the imitation game in limiting the types of potential IEs that might be recognized, restricting the potential roles that IEs might have, and encouraging homogeneity within existing expert communities. Finally, in Section 5, we offer a pluralistic approach to IE, which we argue is not only more descriptively adequate, but can also provide more of the benefits identified in Section 3. In doing so, we emphasize the idea that the value of interactional experts lies in the unique perspectives they can bring to the table, rather than in their ability to sound like other contributory experts. In particular, we suggest that scholars and users of IE should (1) make use of the original, more holistic definition of IE as 'interacting interestingly' with contributory experts, (2) be aware of the diverse profiles of interactional experts, (3) acknowledge that IEs can make substantive and direct contributions to the field in which they hold interactional expertise, (4) view issues of inclusion and diversity as epistemically relevant to science, and (5) embrace and leverage this diversity among interactional experts.

We wish to make it clear that our intention is not to suggest that the concept of interactional expertise is epistemically bankrupt or thoroughly problematic, but rather to highlight some of the problems with the way it's been developed and offer some ideas as to how it might be fruitfully broadened. We believe that a more pluralistic account will serve both epistemic and democratic goals by capturing the diversity of types of interactional experts whose knowledge and experience can improve scientific knowledge and technical decision-making. Finally, we think a pluralistic approach will open up exciting new territory for this concept, both theoretically and in practice.

2. The concept of interactional expertise

Interactional expertise is most commonly characterized in terms of linguistic ability.[4] According to Collins and Evans (2007), IE is "expertise in the *language* of a specialism in the absence of expertise in its *practice*" (p. 28). Collins and Evans contrast IE with more traditional forms of expertise—which they dub 'contributory expertise' (CE)—for which individuals have undergone formal education and training in their field of expertise and often possess credentials that legitimize their epistemic authority. This contrast can sometimes occur by presenting interactional expertise as a

[2] Throughout this paper, we abbreviate 'interactional expertise' as IE and 'interactional experts' as IEs.

[3] For a detailed account of the evolution and uptake of the concept of interactional expertise, see Kennedy and Plaisance, ms in preparation.

[4] See Kennedy and Plaisance, ms in preparation for a more detailed analysis of the other ways IE has been characterized, including passing the imitation game, which we critique in Section 4.