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Categorizing Empirical Research in Bioethics: Why Count the Ways?

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In the target article, Kon (2009) classifies empirical research in bioethics into four hierarchical categories: *Lay of the Land*, *Ideal versus Reality*, *Improving Care*, and *Changing Ethical Norms*. This attempt is not the first to categorize this growing literature.

For example, in 1999, Hope described six ways that empirical research contributes to medical ethics, recognizing that philosophical arguments often depend on facts. First, are empirical research findings that identify new issues and perspectives. Second, are assessments of the effectiveness of different interventions. Third, are surveys regarding beliefs. Fourth, are data regarding different states of health. Fifth, are assessments of the costs of healthcare. Sixth, are examinations of actual decisions.

In 2001, in *Methods in Medical Ethics*, Sulmasy and Sugarman described eight ways in which empirical research contributes to bioethics: 1) purely descriptive studies; 2) testing established or new norms; 3) descriptions of facts relevant to normative arguments; 4) slippery slope arguments; 5) assessing likely consequences; 6) the empirical testing of normative theories; 7) case reports; and 8) demonstration projects.

In 2005, Solomon identified ten relationships between empirical research and conceptual scholarship, which she lumped into three categories: 1) facilitating the move from ethical analysis to ethically justified behavior; 2) enhancing ethical analysis and justification; and 3) generating new ethical concerns. The first category includes documenting gaps between espoused ideals and actual practice; revealing the nature of individual moral reflection and level of personal skill at ethical analysis; describing the institutional and environmental context that mediates moral action; and providing data to stimulate individual and institutional moral accountability. The second includes testing consequentialist claims; validating, refuting, or modifying principles in light of their relevance to moral agents; and

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recognizing the relevance of otherwise neglected ethical principles. The third includes identifying and documenting new moral problems; more clearly specifying acknowledged problems; and clarifying causal mechanisms.

Arguably, any of these typographies offers at least as much insight into the role and value of empirical research as that provided by Kon (2009). Moreover, although the title of Kon's article is "The Role of Empirical Research in Bioethics", he focuses his analysis on empirical ethics research in clinical settings, thereby appearing to equate bioethics with healthcare ethics. As a consequence it is unclear whether Kon means for his typology to be specific or unique to bioethics understood only as an aspect of healthcare or whether he expects it to be relevant to bioethics more broadly.

Kon's (2009) discussion of the hierarchy of categories in his framework, while intriguing, best evidences how the clinical context influences his analysis, stating, for example, that "the ultimate goal of empirical inquiry is to improve care" (59). Even here, however, he seems to fail to appreciate how deeply entwined empirical, philosophical, and legal analyses are in much of first-rate scholarship on ethical challenges at the bedside, including the classic and contemporary literatures on informed consent and clinician assisted death. Kon's claim that when philosophical inquiry relies on empirical data, "the data used are generated solely by the experiences, perceptions, and ideas of the philosopher" (59) is ill informed. Some of the best philosophical scholarship in bioethics is characterized by a careful attention to the latest relevant empirical research, in bioethics and beyond, much as the best empirical research in bioethics is often characterized by a nuanced understanding of the relevant philosophical considerations.

Empirical research in bioethics has made significant contributions to the field since at least the mid-1970s. Relative to other methods in bioethics, the quantity of empirical research has increased significantly in the intervening years. Similar to other scholarship in bioethics, the quality of this work varies. As such, it is important that those using empirical data to inform their conceptual research in bioethics be able to recognize whether the data they are using are valid (Sugarman and Sulmasy 2001).

At minimum, it is essential that the empirical methods used are appropriate to the research question. For example, in some cases, qualitative methods are appropriate while in others more quantitative methods should be used. In addition, each such method requires particular expertise in design, implementation, and analysis. Finally, interpreting the results requires an understanding of the legitimate uses of particular kinds of data. If empirical data are to contribute properly to advancing bioethics, these sorts of issues must be recognized.

Related, those who use empirical data must be sensitive to how conclusive individual studies are, and when multiple studies are necessary to inform one's purposes. Kon (2009) suggests that to change ethical norms (his fourth category), there must be significant amounts of evidence. We would argue that there must be a body of credible evidence to draw conclusions within any of Kon's four areas. Indeed, to recommend a policy change in the name of bioethics—for example to use empirical data to inform how a new health reform proposal is shaped, or how a public health department should collect or manage its data—requires a high threshold of evidence. Thus, we disagree with the implication that only category four requires us to use enough empirical work that "often is not limited to a single publication" (59). The relationship between levels of evidence and 'truth' is a rich and complex area, and those who incorporate empirical findings into their practice recommendations, policy proposals, or conceptual work must be mindful of this fact (United States Preventive Service Task Force 1989). A single study rarely provides sufficient evidence to warrant a change in practice or policy.

In many areas of inquiry, including, for example, moral psychology and cognitive science, the lines between philosophical scholarship and empirical research are blurring in arguably positive ways. Bioethics, which from its modern inception has been an interdisciplinary field, should be at the forefront of this integrative approach to advancing understanding. Indeed, it is the integration of philosophical scholarship and empirical findings that allows us to consider the value of empirical findings to normative recommendations. For example, while Kon (2009) says, rightly, that empirical research can be used to better define right action, what he does not take on is the tough question of whether and when empirical findings should be used to help define what is right and when they should *not* be used for this purpose. While we can point to examples of how empirical data influenced our moral thinking for the better, simple lines can rarely be drawn between empirical findings and moral judgments. We sift through enormous amounts of empirical data and only some of them become the grounds for a change in our thinking about what is right. The challenge is in defining when and why empirical data should contribute to what should be normative and when and why they should not. Clearly, there is interplay between empirical findings and preexisting ethical norms whereby our moral intuitions and reasoning help us to determine which data should modify our previous thinking. That empirical data can be *misused* is a clear risk for bioethics, and this, too, underscores the need for a sophisticated understanding of these methods as well as how empirical findings should relate to other modes of bioethical inquiry. Looking forward, attention to how best to promote a more thorough integration of disciplinary perspectives may be more helpful than typologies of empirical research that are framed against the standpoint of some conception of non-empirical normative analysis.

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