

Experimental Philosophical Bioethics

Introduction¹

There is a rich tradition in bioethics of gathering empirical data to supplement, inform, or test the implications of normative ethical analysis. To this end, bioethicists have drawn on diverse methods--from casuistry, qualitative interviews, and ethnographic methods, to surveys of various kinds--and have developed strong ties with neighboring disciplines, e.g., history, law, and sociology. Collectively, these lines of research have flourished in the broader field of “empirical bioethics” for more than 30 years (Sugarman & Sulmasy 2010).

More recently, philosophers from outside the field of bioethics have similarly employed empirical methods--drawn primarily from the psychological sciences and related disciplines--to advance theoretical debate. This approach, which has come to be called *experimental philosophy*, relies primarily on controlled experiments to interrogate the concepts, intuitions, reasoning, or empirical assumptions behind more traditional philosophical arguments (Cova et al., 2018). Experimental moral philosophy, for example, has begun to contribute to long-standing debates about the nature of moral judgment and reasoning; the sources of our moral instincts; the qualities of a good person or a good life; and the psychological basis of moral theory itself (Alfano, Loeb, & Plakias 2018).

We believe that experimental philosophical bioethics--or bioxphi--can similarly contribute to bioethical debate. Here, we introduce this emerging discipline and attempt to characterize how it might advance theory and practice in this area.

What is experimental philosophical bioethics?

¹ On October 4th and 5th, 2019, an international, interdisciplinary workshop on “experimental philosophical bioethics” was held at Yale University, with the aim of producing a short position statement outlining the distinctive features of this emerging discipline (the meeting schedule and presentation abstracts showing representative new work are available at www.bioxphi.org). We are the workshop organizers and presenters, including experimental philosophers and moral psychologists engaged in research on bioethical topics, and (empirical) bioethicists interested in experimental philosophy and moral psychology. Please note that minor portions of this statement have been adapted from Earp, B. D. (2019, August 2). Introducing bioxphi. *The New Experimental Philosophy Blog*, available at <https://xphiblog.com/introducing-bioxphi/>.

In simplest terms, bioxphi is experimental moral philosophy as applied to topics in bioethics. It is thus a species of empirical bioethics, but one which relies primarily on experiments rather than descriptive studies to make sense of normatively charged phenomena of interest to bioethicists. In this way, bioxphi aims not so much to establish *what* people believe about matters of bioethical concern (for example, how various opinions, attitudes, or preferences are distributed in the general population or among specific stakeholders). Rather, it seeks to uncover and explain *why* or *how* people arrive at certain normative beliefs, judgments, or decisions within the bioethical domain, largely by probing the relevant situational factors and proximate psychological mechanisms.

For example, what does it mean for a person to give informed consent—and what cognitive processes and contextual cues are implicated in that analysis (Sommers 2020)? How do doctors actually think about harm and benefit under different conditions, especially when there is disagreement about what constitutes a harm or benefit for a particular patient? When policymakers decide about fair distribution of resources, what factors influence their intuitions about what justice demands? And how do proxy decision makers make sense of respect for persons when the nature of one's personhood may be contested, as in the case of fetuses or individuals with advanced dementia?

By attempting to empirically address these and other similar questions, the long-term goal of bioxphi is to build a cumulative, explanatory model of moral attitudes and behavior as these relate to bioethical issues, ideally grounded in nuanced, real-life examples (for example, as informed by actual clinical practice). Insofar as more abstract principles or normative arguments come out of bioxphi, they will hopefully be enhanced by having been formulated or tested in the “messiness” of the real world. This is one way in which bioxphi may be distinctive from, for example, armchair moral philosophy, adopting a similar rationale to the broader sub-field of empirical bioethics.

Some illustrative examples

A common method in experimental philosophy is the so-called *contrastive vignette technique*, wherein certain stimuli or aspects of a situation are systematically manipulated to identify the particular factors that shape our moral concepts, intuitions, judgments, and behavior. Consider an important early work of bioxphi by Jansen, Fogel, and Brubaker (2013). They asked a group of physicians to judge the *intentions* of a doctor who, depending

on the experimental condition, brought about either a harmful or a helpful patient outcome as a consequence of enrolling them in a pharmaceutical trial to raise money for his practice. Consistent with classic work on the “side-effect effect” in experimental philosophy (Knobe 2003), participants judged the doctor to have behaved more intentionally with respect to the outcome when his patients were harmed than when they were helped as a side-effect of participating in the study.²

More recently, Earp and colleagues (2019) used the contrastive vignettes technique to study folk intuitions about perceived discontinuity in personal identity as a consequence of addiction. By systematically manipulating the characteristics of an agent and their drug of addiction and asking participants to judge the extent to which the addicted agent was the “same person as” the agent prior to addiction, they showed that becoming addicted to a drug can lead to the strong impression that one is not the same person as before, and that this perception may be driven by perceived negative changes in the drug user’s moral character. This work builds on previous studies exploring the intuitive basis for judgments about (changes in) personhood, for example in the context of neurodegeneration (Strohming & Nichols, 2014; Tobia, 2016)--which in turn may have implications for, e.g., the validity of advance directives.

As a final example, Mihailov, Hannikainen and Rodriguez (under review) describe a series of agents who take cognitive enhancers while engaged in various competitive and non-competitive activities. Through the combined effects of effort and enhancement, each agent succeeds in their activity. Surprisingly, even though procedural fairness was stipulated across all cases, only participants who scored high on a measure of personal investment in fairness (i.e., as a psychological moral foundation) attributed the agent’s success more to the “pill” than to “skill.” They also judged the cognitive enhancement to be uniquely impermissible. This might suggest that concerns about fairness in the cognitive enhancement debate could

² Judgments about clinical intentions are highly relevant to bioethics. In debates about palliative care for terminally ill patients, for example, it is sometimes argued that a high dose of pain medication--i.e., one that will foreseeably cause the patient’s death--may nevertheless permissibly be administered if the doctor’s *intention* is to relieve suffering, not cause death. Yet if judgments about what a doctor actually intended are influenced by such factors as whether their action led to a positive or negative outcome, this may require fresh thinking about how to determine whether such actions are permissible on standard models.

depend in part upon the psychological attributes of the debater. We will discuss the implications of this example in the next section.

Bridging the is/ought divide

Can bioxphi help us draw *normative* moral conclusions from *descriptive* empirical evidence? Is there a way to bridge the is/ought divide? Within the broader field of empirical bioethics, a large number of complex methodological strategies have been employed toward this end . These include normative-empirical reflective equilibrium, grounded moral analysis, and reflexive balancing (Davies, Ives, and Dunn 2015). However, such strategies often take context-specific stakeholder attitudes and judgments at face value, and in forward-looking terms to shape normative and conceptual arguments about the future development of practice. An alternative approach, based on insights from experimental philosophy, involves tracing the underlying sources of such moral judgments, and using this information to assess their reliability in, or relevance to, a normative argument.

As an example, consider that a recurring normative objection to cognitive bioenhancement is that it is one way or another unfair. In the study by Mihailov et al. (under review), it turned out that judgments about fairness were strongly influenced by participants' individual psychological attributes, even when procedural fairness was explicitly not at stake. One might think, then, that the normative force of such judgments, at least when procedural fairness is not at issue, may need to be more carefully evaluated in the context of objections to cognitive bioenhancement.

In effect, this approach asks whether a given influence *debunks* or *vindicates* the relevant judgments (Kumar & May 2019). Consider the following simplified schema for debunking (or vindicating) arguments:

1. Moral judgment M is mainly based on process P. [empirical premise]
2. P is an unreliable (reliable) or morally irrelevant (relevant) process. [normative premise]
3. So: moral judgment M is unjustified (vindicated/not defeated).

Such a schema makes clear that a normative premise is required to bridge the is/ought gap. Yet experimental results can provide crucial support for the empirical premise.

Concluding thoughts

A flourishing bioxphi movement envisages empirically oriented philosophers and ethicists and normatively minded cognitive scientists coming together to study deep questions in bioethics. This is a fundamentally collaborative project, which aims to integrate experimental study and normative analysis. In particular, the experimental approach can illuminate the factors underlying real-life bioethical judgments. Understanding *why* and *how* people make bioethical judgments will lead to a more fundamental understanding of bioethics itself, potentially reshaping how bioethics is approached, studied, and taught, and contributing new insights to public health policy and debates.

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