

Praying Over the Experiment?

One of the oddest but most memorable experiences I ever had in my graduate and post-graduate training occurred one morning when I got to the lab rather early. Our lab was a large one, and had recruited a number of fine, junior investigators from Southeast Asia. As I hung up my coat, I glanced into an adjacent room and saw three of them apparently praying over their experimental materials. They were standing around their lab table. Their eyes were tightly shut, and they were obviously chanting a prayer, all the while making circular arm movements with their palms outstretched over the experiment. I quickly moved away, and I don't think they saw me.

This may sound crazy but is that ethical? I mean, can you ethically argue that researchers should not pray over their experiments because such activity might heighten their interpretational biases or—and this is where things really get vague—introduce some kind of “contaminating variable” into the experiment? I mean, there have been research studies on the power of prayer in medicine with some studies actually showing positive results.

I'll never forget this provocative and rather touching experience. It posed such a contrast, or maybe I should say a confluence, between deeply felt and applied spirituality with the objective, scientific mindset of Western research. But should the lab director condone this sort of thing as a regular practice? Do you think it poses any cause for ethical or professional concern?

Expert Opinion

This scenario speaks to lab management issues in terms of personnel behaviors affecting the work atmosphere, as well as to metaphysical issues that involve Western notions of scientific realism, causality, and objectivity.

Why might many Western investigators feel uncomfortable about this scenario? Paradoxically, if the traditional paradigm of Western science would categorically dismiss the possibility of divine intervention affecting a lab experiment, then why shouldn't we simply allow the lab personnel to pray as they wish and leave them alone? On the other hand, one might argue that the opportunity for a Hawthorne-like effect is present as the lab personnel might improve the quality of their work with the adoption of some formal, group prayer practice.¹ So, one response to the scenario might be that if such ritualistic praying is allowed and it occurs, it should be duly documented in the laboratory notebooks, described in any reports or manuscript submissions, and maintained in all significant experimental moments (e.g., praying over the control as well as the experimental arms of a project) since some might understand it as a significant experimental variable.

Perhaps an equally concerning issue is whether or not the practice of group prayer in the laboratory disturbs the objectivity of the praying investigators. Does it so heighten or reinforce their expectation of or desire for a specific experimental result that their objectivity might be compromised, such that they might be more subjectively inclined to claim the confirmation of their hypothesis when others would disagree?

Might the prayerful have their objectivity disturbed as, for example, believing that their *data and their interpretation of the data* are divinely blessed? Or might the prayerful be requesting a divine favor such that their team be blessed in being the first in making the great discovery, which certainly sounds like self-interested praying? But many, if not all, investigators aim and hope for and perhaps even sometimes pray for a particular result. The question of blemished or corrupted objectivity is probably best managed in the traditional way: by reasonable oversight or peer review in the lab, such that solid hypotheses are framed, and researchers discuss and justify their data gathering and findings with their peers.

Should we be troubled by the prayerful investigators invoking some kind of metaphysical intercession? Don't clinicians occasionally pray with their patients, especially the ones about to undergo surgeries and the like? We recently heard a story about hospital staff who prepare the packages of surgical tools that are to be used in their hospital's operating rooms.² The names of patients are printed on the orders, and some of the staff remarked that as they fill the order, they quietly say a prayer for each and every patient's recovery. Remarkably, one staff member admitted to performing this prayer practice for over forty years.

Why does a story like this seem so heart-warming, while praying over a lab experiment seems problematic? The answer is that clinical interventions do not primarily involve a search for truth but seek to accommodate the self-interests of patients (by way of relieving their suffering, curing their ills or diseases, etc.).³ The practice of medicine would not exist without self-interested consumers, and it is precisely those self-interests that medicine seeks to accommodate whenever possible. The practice of research, however, is primarily and fundamentally motivated by an interest in uncovering the truth. Its practice is fundamentally epistemological: to confirm a hypothesis or create generalizable knowledge. Of course, that knowledge might ultimately advance another's self-interests, such as the patient who ultimately benefits from a new, FDA approved antibiotic or antidepressant. But the anticipation of relief from suffering and royalties to the drug's discoverers must occupy a second place to the investigator's primary moral obligations of protecting research participants from unnecessary or unreasonable harm and taking pains to insure the integrity of his or her data.

How, then, might this phenomenon be managed? First of all, if a lab director forbade such a practice, would he or she be infringing on the prayers' freedom of religious expression? Must the lab director make a "reasonable accommodation" for the prayers, such as allowing them to pray in the very early morning? Probably not. Because praying over an experiment is not a traditional or customary expression of religious worship, one could assert that it is not a reasonable accommodation issue.⁴ It is hard to imagine the prayers persuasively arguing that the only place they can pray is in a laboratory, while it is easy to imagine that certain personnel praying in a laboratory might significantly disturb the lab's psychological or work atmosphere.

On the other hand, and especially depending on whether the laboratory is located in a state or religiously affiliated institution, might other lab personnel not only *not* be disturbed by the practice, but welcome it? If so, the lab director might want to

discern how the prayer practice is being perceived by other staff. How do they understand the practice's effect on the research being conducted and, especially, on reporting experimental results? How does it affect other work being done? The lab director must carefully ask him or herself "What exactly ought I be responding to here?" (and, even then, be very thoughtful about how his or her own biases might affect the answers).

Should the institution develop a policy on this? Does it matter, for example, whether the experiment is federally or privately funded? Should these questions be clarified by the institution's office of legal affairs? Would it be acceptable for the institution to leave the matter entirely up to the discretion of any of its lab directors, such that they could categorically forbid the practice, or only allow it before or after the lab's customary hours of operation, or allow prayer to be practiced at any time?

Ultimately, this scenario recalls Horst Rittel's and Melvin Webber's 1973 discussion of the "wicked problem."⁵ Wicked problems are invariably multifactorial; their very articulation is problematic as different persons will disagree on what the true or real problem is; suggestions at resolving the problem only generate more problems; no resolution seems more than tentative; and the core of the problem appears to involve vague, ever-changing, or inconsistent phenomena.

There appears to be no decisive resolution to this scenario as different persons will understand and weigh the questions and issues articulated above differently. The idea of a ritual prayer practice over an experiment seems to challenge if not contradict Western comprehensions of scientific method, but there is no way to prevent entirely those who insist on its practice. The challenge is to evolve a management strategy in the lab that is fair and respectful to the prayers, that respects the sensibilities of others, and that does not compromise the integrity of research findings.

References

1. Hawthorne effect. See http://en.wikipedia.org/wiki/Hawthorne_effect.
2. In a hospital, there's no monopoly on prayer. <http://www.npr.org/templates/story/story.php?storyId=98451551>.
3. See, for example, Robert J. Levine, *Ethics and Regulation of Clinical Research*, 2nd edition. Baltimore, MD: Urban and Schwarzenberg, 1986:3-10.
4. Personal communication with Professor Edward Queen, Emory University, Jan. 30, 2009.
5. Wicked Problem. See http://en.wikipedia.org/wiki/Wicked_problem.