

Would You Do a Post Doc with this Guy?

Dr. Stupendous was world-renowned—a fact that he reminded himself and his staff of every day. One reason that he was world-renowned is because his post-docs worked like maniacs and turned out an endless stream of manuscripts and grants. Dr. Stupendous was quite a motivator, which brings up the ethical problem I observed.

Every year, Stupendous hired at least 3 post-docs and frankly told them at their hiring that they would all be assigned to the same project. Whoever was first to produce a manuscript that, in his opinion, was ready for publication would be asked to stay. The others would be asked to leave at the end of their commitment. The latter's letters of recommendation would be based upon the amount of progress they made in the time they had remaining in the lab.

While I suppose competition is a healthy thing, Stupendous's version of it struck me as both sadistic and somewhat lunatic. It's hard to imagine a laboratory marked by collegiality and trust, given Stupendous's ground rules. But, alternatively, science is keenly competitive and his strategy certainly seemed to make for a work ethic whose productivity was the envy of every lab at the University.

Still, I don't think I'd want to do a post-doc with this guy. Is this the way hiring and productivity rules for post-docs should be laid down?

Expert Opinion

This scenario raises a number of questions about the kind of professional environment the leadership of a laboratory should want to realize. For example, one would think it uncontroversial that the laboratory's leadership would want the work environment to be as intellectually stimulating and as personally satisfying as possible. One would also want the lab environment to encourage good science so that collegial resources would always be available to provide insight and recommendations to investigators in their framing hypotheses, designing experiments carefully, executing them faithfully, and insuring the integrity of their data. Also, one would want a lab to maintain an ethical atmosphere whereby personnel demonstrate traits or sensibilities that are protective of the welfare of human participants, that treat laboratory animals as humanely as possible, that assure data integrity, and that protect the reputation of the institution.

So, with this as our background, let us consider Professor Stupendous's motivational strategy for new post-docs. Now, it is tempting but perhaps misguided to frame this assessment along the lines of "What is likely to happen in Stupendous's lab given the atmosphere that is induced by the competitive nature of his strategy?" The reason why is that there are too many imponderables at play, and we'd be overspeculating in a way that would invite too many hunches and biases. (And, of course, we have no crystal ball.)

A more ethically credible approach might instead ask: Is there anything that might be morally worrisome, given Stupendous's approach to evaluating and supporting the performance of new post-docs? In other words, assuming the truth of the above observations about the value of maintaining an intellectually stimulating and professionally satisfying lab, the value of collegiality in producing high-quality science, and the importance of instilling

professional virtues, is there room for legitimate worry or concern that Stupendous's strategy will seriously fail to realize these aspirations?

It seems beyond debate that Stupendous's strategy will force his new post-docs to think very strategically and to understand their relationship with one another as decidedly competitive—after all, to only one will go the spoils. One worry, then, is that a post-doc might not pursue a project that particularly interests her or that she particularly values, but rather one that she believes will get her first across the finish line. This would be lamentable, of course, because although investigators are always faced with constraints, e.g., available funding, available technology, available knowledge, etc., the academe generally sponsors creativity and career growth. But if Bill were one of Stupendous's post-docs and was faced with choosing between a project that 1) really fascinates him, 2) would have a huge scientific payoff, but 3) is very novel, 4) challenging to pull off and 5) would require lots of time with no payoff in any way guaranteed, he might very well opt for a much safer project, even if it's relatively uninteresting and of only modest scientific value. In short, we worry that the first two years of each of these post-docs' stays in Stupendous's lab will be spent on their concentrating on projects that will enable them to survive, rather than work on producing exemplary, exciting science.

There is another worry about how cognitive or judgmental biases might creep in and compromise scientific objectivity, given the pressure the post-docs are under. For example, the "availability" or "confirmatory" biases are both well recognized, where the investigator or scholar—who in such cases does not have the leisure to be as rigorously objective as he should be—either seizes upon the first explanation that is available to explain his results, or only accepts evidence that confirms his favored theory of what is happening.¹ He does this because of what the military have called "target fixation." His desire to attain his goal is so intense that it has blinded him to other variables that need to be considered. Inattention to them might result in carelessness, intellectual hubris, and then horror when his project goes down in flames.

We might also worry about how these post-docs, all working on the same project, will come to understand and configure their relationships with one another. Surely, they are in a stressful, competitive situation. Probably too, they are very bright and ambitious. At the very least, one might speculate that these post-docs will not share their data with one another since that would be tantamount to giving ammunition to the enemy. (Indeed, one wonders how Stupendous has choreographed their lab partner affiliations: Given the fact that the post-docs are competing against one another by working on a similar project, does each post-doc work with a different team such that none of the teams talk to one another? If so, such a sensibility or lab practice would contradict the practice of data sharing, which is widely valued and anticipated in research labs.)

At worst, of course, anyone ought to be worried that given the pressure Stupendous's post-docs are under, sooner or later one of them will be sorely tempted to sabotage the others' projects. Sadly, there are too many stories about researchers contaminating one another's samples, changing labels on specimens, or stealing or destroying one another's data. How does Stupendous police for this?

In some of our other opinions, we have mentioned Shamoo and Resnik's list of scientific virtues.² We are especially worried that the virtues of objectivity, integrity, openness, and

respect for colleagues are imperiled by Dr. Stupendous's work strategy for new post-docs. One hopes that there are professionally healthier ways to accomplish the professional objectives that Dr. Stupendous values and that do not threaten the erosion of scientific virtues as his approach does.

1. Groopman J. *How Doctors Think*. Boston, MA: Houghton Mifflin, 2007.
2. Shamoo AE, Resnik DB. *Responsible Conduct of Research*. Oxford: UK, Oxford University Press, 2003.

[©2009 Emory University](#)