

Scientific Misconduct: When Smart Researchers Do Stupid Things

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There's been considerable media coverage about scientific misconduct (usually defined as fabrication, falsification, plagiarism or deviations from commonly accepted research practices) during the past decade, especially when such misconduct may have resulted in the deaths of human subjects. While most media coverage (and government reports) document specific improper behaviors, I haven't seen any psychological or behavioral "profiles" of those who commit scientific misconduct. Nor would I try to guess what's in the mind of specific researchers who engage in misconduct. That's the domain of the researcher's psychotherapist. But there are some valuable insights into the stupid/foolish behavior of otherwise smart people. Being intelligent does not confer immunity from making "foolish" decisions and engaging in "stupid" behavior, even among researchers with advanced degrees.

Robert Sternberg's recent work applies a scholarly perspective in its analysis of such normally pejorative terms as "foolishness" and "stupidity". He has identified four thinking problems that cause smart people to behave stupidly. I have applied Sternberg's thinking problems to suggest why otherwise very intelligent researchers might "stupidly" engage in scientific misconduct.

While these four problems are listed individually, such a listing doesn't imply that a researcher can have only one problem, although that can happen. Usually, foolish and stupid behaviors occur because a person possesses one or more of these thinking fallacies.

1) Egocentrism Fallacy

It's all about "me, me, me." Researchers can get into serious ethical trouble when they make decisions based almost exclusively on their own interests, wants, and needs without taking into consideration the needs of anyone else -- such as human subjects, co-workers, research administrators, funding agencies, etc. Grants, publications, international reputations, and scholarly prizes are not only academic goals, but may be the most important way some researchers have of satisfying their strong egos.

Anyone with IRB experience has some horror stories of dealing with researchers with enormous egos, the problems created by those egos, and those researchers' blind spots regarding the damage done to others because of their strong egos.

2) Omniscience Fallacy

People who know a lot about one area -- such as MDs and PhDs with very specialized training -- may start to think they know everything about many areas. If they are on the cutting edge of research in their own discipline, they may generalize their intellectual command of that domain to other domains, and may be oblivious to their own ignorance. They know what they know, but they don't know what they don't know.

Being viewed as an expert, or even “the authority” on a subject may foster an unrealistic belief in one’s own omniscience. Moreover, staff working with “the authority” may believe that the researcher (their employer, supervisor, or mentor) does possess almost superhuman abilities. If they all engage in “groupthink”, in which they are unable to accurately evaluate the researcher’s behavior because the whole research team is thinking the same way, they may support “the authority” without question and without external validation. Interestingly, many cases of scientific misconduct are publicized by individual whistle-blowers -- not by an entire research staff.

Especially in medicine, where physicians have control over life and death, some physician-researchers may come to believe that they have control over everything else around them. Such researchers may be reluctant to follow IRB recommendations or advice, because the researchers believe they know more than the IRB. Indeed, they may see IRB members as obstructionists standing in the way of scientific progress.

3) Omnipotence Fallacy

Some researchers may see themselves as all powerful. They think they can do whatever they want because the rules that others follow simply don’t apply to them. In part this may be due to the nature of research itself, which requires independent thinking and the willingness to challenge authorities in one’s field. Science advances as research disproves old theories and supports new ones. Old theories and their proponents are overthrown. New theories and their proponents achieve fame and fortune. That is a powerful feeling, especially for researchers with strong ego needs.

Of course research requires independent thinking, but too much independence may disconnect researchers from both ethical and institutional controls, thus creating an unrealistic sense of power and control. Complete independence means that some researchers believe that they are accountable to no one but themselves.

4) The Invulnerability Fallacy

Some researchers may believe they can get away with anything because they are immune to the normal consequences of behavior. Researchers who have strong egos may believe they know everything. They may want unlimited power (or are given unlimited power) to do what they want to do, thinking they won’t (or can’t) be caught. They may believe that if they do get caught, they have the skills necessary to get themselves out of trouble, or the support of staff and administrators who simply won’t allow them to get into too much trouble. It seems that very well-known researchers can get away with inappropriate behaviors that would cost newer relatively unknown researchers their careers.

When scientific misconduct is alleged, the whistle-blowers are described as “unhappy” or “disgruntled” employees -- terms that appear to protect the researcher by blaming the whistle-blower. Whistle-blowers are vulnerable; authoritative researchers are not.

Intelligence without wisdom = evil.

Sternberg suggests that wisdom involves balancing intrapersonal (psychological) interests, interpersonal (between people) interests, and extrapersonal (organizational or community) interests both now and in the future. Those engaging in scientific misconduct may be doing so because they are out of balance in one or more of those three areas. Researchers are out-of-balance if their ego needs are overwhelming, or they have strong needs to exert power and control over other people, or if they care more about themselves and their career than they do about human subjects or their co-workers or the institutions that employ them.

Sternberg notes that: “An evil genius may be academically intelligent; he or she may be practically intelligent; he or she cannot be wise” (p. 237). Intelligence does not protect researchers from academic misconduct: Indeed, from Sternberg’s perspective, some of the most flagrant scientific misconduct may be expected from some of the most academically gifted researchers whose interests are simply too far out of balance.

References

Sternberg, R.J. (2002) Smart People Are Not Stupid, But They Sure Can Be Foolish. The Imbalance Theory of Foolishness. In Sternberg, R.J., ed. *Why Smart People Can Be So Stupid*. New Haven: Yale University Press.

Sternberg, R.J. (2003) President’s Column. Responsibility: one of the other three Rs. *Monitor on Psychology*, 34(3), 5.