"Those people who sit on the study sections, it's not unknown for them to take your ideas, kill your grant, and then take it and do it."

(*J. Empirical Res. Human Res. Ethics* **1**, 43–50; 2006)

Plagiarize or perish?

Peer review, whether of grants or publications, is a matter of trust. And sometimes, scientists break that trust.

Instances when a reviewer steals an idea from a grant or paper under review are hard to trace—and even harder to quantify.

In a study published in March, scientists reported that "theft of ideas from conference papers and grant proposals" and "manipulation of the review system" are common problems (*J. Empirical Res. Human Res. Ethics* **1**, 43–50; 2006). Nearly half of the 51 scientists interviewed said they were aware of cases where colleagues used another's ideas without obtaining permission or giving credit.

But because those instances are largely anecdotal, there was no system in place to tackle them. Beginning last year, however, the US Office of Research Integrity (ORI) took on the authority to intervene in cases where the research is funded by a federal agency. The new definition of scientific misconduct for the first time includes problems that emerge during peer review.

For instance, in one of five cases of possible 'reviewer misconduct' collected by the UK-based Committee on Publication Ethics (COPE), a scientist who had reviewed a paper later submitted a manuscript that included models taken from the original paper. The committee also cites cases where reviewers did not keep manuscripts confidential or did not disclose conflicts of interest.

The ORI has also handled a handful of cases of misconduct during review of grant applications—most of them involving plagiarizing ideas from the applications—at the US National Institutes of Health.

"I'm quite sure the majority of reviewers are completely honest," says Harvey Marcovitch, chair of COPE and an editor of the *British Medical Journal*. "But I think every editor would tell you about instances of professional jealousy or even personal dislike between authors and reviewers that can lead to injustice."

Tinker Ready, Boston

Can't hide your lying eyes

We've all heard about those tell-tale signs when someone lies: that they can't meet the questioner's eyes, or that they blink their eyes rapidly, or that they don't blink at all. Is there any truth to these? Meredith Wadman asked Joseph Buckley, an expert in lie detection. President of the Chicago-based John E. Reid and Associates, Buckley has trained people in the private sector and in government, including the US Office of Research Integrity and the US Food and Drug Administration.

Q: How can you tell when someone is lying?

There is no behavior unique to lying. But there are some very obvious things that we look for: evasive answers, the person who tries to misdirect you when you're looking at a particular set of data, the person who can't produce in a timely manner the appropriate backup for the data.

Most truthful people, if you ask them, "did you falsify this data?" have no problem with the word "no." But when you ask an individual who responds "to the best of my knowledge nothing has been falsified" or "as far as I can recall," it makes you wonder, why the qualification?

Q: What about nonverbal clues?

Let's say you are asking someone about the results of a particular experiment and he's very calm. Then you go to this second experiment and all of a sudden you notice his leg is bouncing up and down very nervously. The hands are rubbing and wringing each other as he's describing this second experiment and you notice he doesn't have the same verbal detail as he did with the first. All of this suggests that maybe we better take a closer look at this second experiment.

Q: How foolproof are these techniques?

Nothing is foolproof. But if you use a structured interview process that includes both behavior-provoking and investigative questions, research suggests they can be as much as 85% accurate (*J. Forensic Sci.* **39**, 793–807; 1994).

Q: What are behavior-provoking questions?

For example, the punishment question. Most truthful people want the person who did that kind of thing to be appropriately punished. When you ask the punishment question of the actual offender, they usually don't hang themselves. Rather they are evasive or soft in their punishment: "That's not for me to say"; "Gee, it depends on the extent to which the information was falsified"; "Maybe they should have a chance to redo their work."

Q: If you know what the signs are that someone like you is looking for, can you fake the interview?

The more you try to control things, the more unnatural they become. For example, some people are aware of the fact that nonverbal behavior might suggest when they are uncomfortable with an answer, so they try to sit perfectly still during the interview. But for someone to sit there for 35 or 40 or 60 minutes and not move is certainly very unnatural. It tells you that something is going on.

But there is no automatic way to know if someone's lying. You always have to evaluate the behavior with the case information, the case facts, the documentation.

Meredith Wadman, Washington DC