

## Scenario A1

You are a researcher working in an exciting and little-explored area of study. Research has been progressing steadily over a one-year period and you have already gathered half of the data called for in your experimental design. You feel certain that your findings will be well received and give you new professional clout in your area of expertise.

This morning, you received a phone call from a colleague at another university who knows about the work you are doing. They inform you that they just learned of someone at their university who has been working on the exact same area of study and is mere weeks away from publishing their findings in a prominent science journal. Other details emerge: the rival researcher has been running their experiment at twice the speed you have, but gathering only half as much data. Their experiment is probably not as rigorous as yours, but they are finishing sooner.

You fear that if your rival publishes first (i.e., “scoops” you), you will not receive the same level of recognition as they. Moreover, you fear that by *not* publishing first you may lose some ability to attract grant money to future projects. Even so, you feel certain that you are running a more rigorous experiment with more data, and that your research will be of much higher quality.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Proceed on schedule as planned, and submit your manuscript only when the experiment is fully finished.
- Complete your experiment with only half of the data originally called for in order to finish sooner, then submit your manuscript at the same time as your rival.
- Submit a letter to the editor of a prominent journal to announce your preliminary findings, then proceed with the rest of your experiment as scheduled.
- Post some of your preliminary findings to a professional society website, then proceed with the rest of your experiment as scheduled.
- Approach the rival author and propose a collaborative publishing effort that uses both sets of data.

## Scenario A2

Three months ago, you completed work on a research project that correlated a chemical species with a specific type of cellular metabolism. The paper that you submitted to a prominent science journal was accepted for publishing last week after passing a two-month peer review; it is scheduled for publication in three months as the main cover story.

One of your laboratory colleagues approached you this morning with disturbing news: one of the instruments used to measure the chemical species was not properly calibrated during your experimental runs. The data values gathered were inaccurate, reading consistently higher than the actual values. After a quick computation with the new data, you find that you still have a significant correlation, but it is not as strong as described in your originally accepted paper.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Contact the journal publisher immediately and withdraw your paper until you can resubmit it with the calibrated data.
- Say nothing to the publisher now and allow your paper to be published anyway, then submit an error-correction letter (errata) to the journal for publishing later.
- Say nothing to the publisher and shrug off the problem as “experimental error.”

## Scenario A3

You are a new researcher in a field heavily populated by experts. The publishing environment is competitive and fast. Your particular area of research is being done within a laboratory run by an elderly principal investigator (PI) whose concepts and methods are rejected by many younger researchers yet accepted by many of the “old guard” in her field. Your PI has always been supportive of your efforts and she has taught you a very great deal about your field of study. You are grateful for the opportunity to work with such a pioneering, well-known PI as she completes a long, distinguished career.

You have just completed a paper on the research you have been doing, which utilizes both “new” and “old” concepts. You feel certain that many newer researchers will accept it; however, you fear that if your PI’s name is on the list of authors that many journal editors will reject it out of hand. Traditionally, the PI’s name appears on any paper that comes out of her lab; however, she is willing to let you publish it without her name on it if you wish that. You feel personally loyal to your PI, but you also fear the political reprisal of some editors by having her name on your paper.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Keep your PI’s name on the paper and begin the submission process.
- Take your PI’s name *off* of the paper and begin the submission process.
- Leave your PI’s name on your paper, but rewrite it to deemphasize the older concepts and methods she is associated with.
- Move to a different lab with a younger PI and publish your paper from there.

## **Scenario R1**

You have been selected by a prominent science journal to referee a paper in your field of expertise. The paper you received has the name of the author blocked out, but you immediately recognize the experiments and methodologies of a fellow researcher in your field. In short, the author of the paper is not named, but you are almost certain of the author's identity.

You consider the author in question a rival to your own research. You have never agreed with their methods and you view their science as sloppy and unprofessional. In addition, you would probably agree with the assessment that you and the rival author simply do not "get along." Conversely, many in your field are comfortable with the author's work and like them personally.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Request that the section editor of the science journal reassign you to a different paper, informing them that you are fairly certain of the author's identity and have "personal issues" with them.
- Exercise your best scientific judgment and reject the paper as inadequate, without telling the publication editor(s) of your personal feelings about the author.
- Swallow your pride, then try to give the best, most honest assessment of your rival's paper. Try as hard as possible to accept the author's scientific methodology while remaining objective and scientific in your review.
- "Turn the other cheek" and accept the author's paper—you've been too harsh.

## **Scenario R2**

You have been selected by a prominent science journal to referee a paper in your field of expertise. The paper you received has the name of the author blocked out, but you immediately recognize the experiments and methodologies of a fellow researcher in your field. In short, the author of the paper is not named, but you are almost certain of the author's identity.

You consider the author in question a close personal friend; in addition, you almost always agree with their research methodologies. You often ask the author for advice on your own research, feeling they are one of the best researchers in your field. In short, you are ready to approve the author's paper on-sight.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Request that the section editor of the science journal reassign you to a different paper, informing them that you are fairly certain of the author's identity and feel biased in favor of their work.
- Exercise your knowledge of the author and accept their paper without telling the publication editor(s) of your personal feelings about the author.
- Set your favorable bias aside, then try to give the best, most honest assessment of your friend's paper. Try as hard as possible to be critical of the author's scientific methodology while remaining objective and scientific in your review.

## Scenario R3

You have been selected by a prominent science journal to referee a paper in your field of expertise. The paper you receive is startling. Much of the research described in the paper is new and the paper's findings are certain to have a significant impact upon your field. You feel certain that the paper you are reviewing will be one of the most important of the decade.

One of the insights gleaned from the paper sheds an entirely new light upon your own personal research. It solves a longstanding conceptual problem you have been struggling with and inspires you to proceed in a new direction. In short, it changes everything. You feel certain that other reviewers will feel as you do and rapidly accept the manuscript as-is. Almost certainly, the author's paper will be published by the journal within three months.

You feel compelled to make immediate changes to one of your own research papers, which you are preparing for submission. You see several ways to apply the author's new insights to your own work and feel compelled to do so before others find out about it.

What should you do?

### ***Possible Actions to Consider (Among Others)***

- Do nothing with your own research until the author's paper has been officially accepted by the Editor-in-Chief of the journal.
- Do nothing with your own research until after the author's paper has been published.
- Begin making immediate changes to your own research based upon the new findings, but delay publishing anything about it until the author's paper has been published.
- Ask to contact the author of the paper and request their permission to utilize their work in your own research.
- Urge the author to release their findings to an electronic website, forum or message board so that other researchers (including you) can begin utilizing them in their own research.