

nature neuroscience

Decisions, decisions

"I was shocked and disappointed by your rejection letter," authors write, hundreds of times each year, "I must ask that you reconsider your decision." Rejection is of course a fact of life for all scientists, particularly when they submit their work to highly selective journals; in less than five years since its inception, *Nature Neuroscience*, for example, has turned away over 6000 manuscripts, roughly 90% of all submissions.

Although many decisions appear clear-cut, others are necessarily based on subtle distinctions between papers, and referees or editors can sometimes make mistakes. Rejections based on serious errors are frustrating for authors and damaging to the journal's credibility, and so we have a procedure for reconsidering decisions at the author's request. However, because the number of appeals has been growing to the point that it threatens to overwhelm our editorial resources, we have recently implemented a new system for considering them. If authors wish to contest an editorial decision, we ask them to submit a form that organizes their arguments into categories that we find useful in reviewing our original judgments. The categories include—roughly in order of persuasiveness—new data or analysis, factual errors by referees or editors, disagreement with technical criticisms, evidence of referee bias, procedural concerns and disputes over novelty or significance. This structured form allows us to evaluate the issues more efficiently, and we hope it will also help authors focus their arguments, and perhaps even recognize when they are wasting their time.

Authors are understandably motivated to dispute rejections; scientists are evaluated on their publication record, and even if their own positions are secure, senior authors feel a responsibility to promote the professional advancement of their students. If rejection follows a long review process, it can be especially disappointing. In addition, most authors are genuinely excited about their work, and usually submit to *Nature Neuroscience* because they believe that the paper deserves high-profile publication. Thus it is not surprising that the first reaction to a rejection letter is often a sense that the editors must have made a mistake.

Editors, on the other hand, must guard against a different category of mistake, as it is their responsibility to balance the intense investment of the authors in a particular decision against the more diffuse interests not only of their readers but also of other authors. If the journal lowers its threshold for publication, its reputation will decline, devaluing the achievements of thousands of previously accepted authors. In a competitive world, as Gore Vidal put it, "It is not enough to succeed. Others must fail."

Because the 'quality' of a manuscript is not a linear variable, editorial decisions invariably have a subjective component. Papers are evaluated along multiple dimensions, including techni-

cal reliability, novelty and interest, but the final decision to accept or reject must collapse all this information into a single binary choice. Journals vary in their attitude toward such trade-offs, for example in deciding whether to publish a paper that proposes an important new idea based on data that are less than solid. To complicate matters further, editors must base their decisions on evidence that is never completely reliable. In a perfect world, we would consult with dozens of experts, who would spend many hours considering every point in the manuscript. In practice, of course, this is impossible, and editors must instead rely on a few referees representing a cross-section of informed opinion in the field.

In light of such uncertainty, the threshold for reversing a decision must be set well above the level of 'noise' in the process: otherwise, decisions would simply go back and forth endlessly in a kind of Brownian motion. Thus a successful appeal requires convincing the editors that the original decision was a serious mistake, not merely a borderline call that could have gone either way.

If a paper was considered insufficiently novel or interesting to merit high-profile publication, we are unlikely to reconsider simply because the authors disagree. If a paper was rejected because the authors failed to persuade the referees that they had excluded alternative interpretations, then new data or analyses are likely to be required for the appeal to have any chance of success. Allegations of referee bias are seldom persuasive unless substantiated by strong evidence; we presume our referees are acting in good faith unless proved otherwise, and having sought their advice, we feel an obligation to take it seriously. We may reverse decisions in cases where a referee (or editor) has made a serious error of fact, but only if the error was crucial to the decision. We do our best to insure a fair and consistent process for all authors, but procedural concerns must be balanced against our obligation to maintain, and if possible raise, the journal's overall standards. Finally, despite persistent beliefs to the contrary, we do not base our decisions on the reputations of the authors or their friends, and so we do not respond favorably to 'celebrity endorsements' or statements about authors' previous track records. Overall, it is relatively uncommon for new information to completely change our view of a manuscript, and we ultimately uphold our original decisions in over 90% of cases.

Thus, in rejecting an appeal, we do not intend to imply that our initial decision was flawless, only that the arguments for reconsideration were not sufficiently convincing to exceed the deliberately high threshold for reversing a decision. To borrow a phrase that Bertolt Brecht originally wrote about science itself, the chief aim of our appeals process "is not to open a door to infinite wisdom, but to set a limit to infinite error."