Guidelines for Tutorial Articles in *Journal of Mathematical Psychology*

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Ever since the days of Ebbinghaus and Fechner, mathematical psychologists have been developing quantitative models of human cognition, perception, and performance. This quantitative approach has been a resounding success. A cursory glance at past and current issues of psychology's premier journal, *Psychological Review*, confirms that mathematical psychologists have driven, and continue to drive, much of the theoretical progress in psychology.

Despite this success, the field of mathematical psychology appears to have a serious PR problem. People unfamiliar with the social sciences often feel that mathematical psychology is an oxymoron, because it combines the incompatible: the science of mathematics and the pseudoscience of psychology. On the other hand, people in empirical cognitive science sometimes believe (and perhaps hope) that mathematical psychology is largely irrelevant to their work. And finally, even people who themselves develop quantitative models of human cognition, perception, or performance—that is, mathematical psychologists pur sang—often do not consider their work part of mathematical psychology.

One factor responsible for mathematical psychology's poor PR is that the majority of articles in the *Journal of Mathematical Psychology* are written for a small audience of experts. This often does not do justice to the considerable relevance that the work has for non–experts. Thus, in order to underscore the relevance of mathematical psychology to cognitive science, in order to in order to make quantitative models and methods available to a broader audience, and in order to increase the visibility of the *Journal of Mathematical Psychology*, the journal has instantiated a *tutorial section*.

Tutorial articles may discuss the application of particular quantitative or mathematical models and methods, or may explain particular theories that are relevant to cognitive scientists or psychologists. The target audience consists not only of mathematical psychologists, but also includes interested graduate students in cognitive science and psychology.

Consequently, the main criteria for acceptance are accessibility and potential benefit to the field. Even though some tutorials may be invited, all tutorials will undergo a thorough review process.

To increase the probability that your tutorial article will be accepted, please take careful note of the following advice:

1. In tutorial articles, the overriding concern is clarity. In order to increase clarity, you may incorporate concrete examples, graphical illustrations, and —possibly in an appendix— annotated computer code. Make sure your article provides key concepts and their intuition, in nontechnical and easy–to–understand terms. Explain all but the most elementary mathematical and statistical concepts. In order to make sure that your article caters to the target audience, consider asking a few graduate students to provide suggestions for improvement. Note that one of the reviewers of your tutorial article will be a graduate student, whose job it is to review mainly for clarity.

2. Of special interest to the journal are methods, models, or theories that are either popular and widely applied or new and promising.

3. For a better understanding of what constitutes a good tutorial in *Journal of Mathematical Psychology*, please take note of the tutorial papers in the 2000 special issue on model selection (Myung, Forster, & Browne, 2000), the 2003 tutorial on maximum likelihood estimation (Myung, 2003), and the 2007 tutorial on kernel methods for categorization (Jäkel, Schölkopf, & Wichmann, 2007).

4. For a tutorial article, manuscript length is not a primary concern. However, keep in mind that lengthy papers may be less effective than short papers. It is important to strike a balance between prose that follows the minimum description length principle versus prose that is overly wordy. When in doubt, err on the side of wordiness.

5. Once you have decided you would like to write a tutorial paper for *Journal of Mathematical Psychology*, please feel free to contact me and ask whether or not your topic is potentially of interest to the journal.

Recent history has shown that tutorial–style articles published in *Journal of Mathematical Psychology* are highly cited and often downloaded from the Elsevier site. This clearly shows the need for easy–to–understand papers on technical topics. I hope and expect that the new section in the journal will cater to this need and become a popular outlet for tutorial–style articles.

References

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