that would accrue to the hiring school. Furthermore, if such a teacher authors one or more "science" books espousing his or her religious beliefs, his or her PhD degree would likely enhance the sales and acceptance of these publications by potential readers. Many publishing houses are devoted to sponsoring and promulgating such works. The influence such authors could have among the general public might potentially spread far beyond the classrooms in which they teach.

What about a fundamentalist PhD that enters the secular academic world and becomes privileged to teach science classes? Will the teacher be allowed to abuse her or his academic freedom of speech by philosophizing about unscientific ways of explaining the physical universe in science classes? Where in the pipeline from a candidate's entry into the PhD program to her or his graduation and teaching appointment, in a public-supported school, is there any

oversight or regulation? If basic philosophies do not matter, what does the academic title PhD represent? I fear that as long as educational systems continue to avoid addressing these concerns, students being taught "science" by fundamentalist teachers are at risk of (among other things) being confused about the boundaries of science and the methods whereby scientific knowledge is gained. Let freedom ring, but let it ring in the right places.

The Two-Months Argument for Parapsychological Research

JESPER JERKERT

n the perennial debate between parapsychologists and critics, some arguments are recycled in a seemingly endless fashion, whereas others pop up suddenly and then gradually fade into oblivion. One of those popup arguments is the two-months argument (TMA, for short), which dates back to a 1993 paper by Sybo A. Schouten. TMA goes like this: "... the entire investment (during the last onehundred years) in parapsychological research in the United States is equivalent to less than two months' research in psychology in 1983." By "investment," Schouten mainly referred to human resources, but he also assumed that research facilities for individual researchers were more or less equal for parapsychology and "ordinary" psychology. Therefore, TMA has been invoked to support not only the thesis

Jesper Jerkert is the chairperson of the Swedish Skeptics (Vetenskap och Folkbildning), founded in 1982, which has a current membership of 2,100. The organization's Web site can be found at www.vof.se. that parapsychology is still a young science but also the thesis that parapsychology is underfunded.

Immediately in 1993, Charles Honorton began the use of TMA against skeptics. Statistician Jessica Utts invoked TMA in the famous 1995 debate with Ray Hyman over the U.S. government's two-decade psychicresearch program. And, even today, TMA has not yet faded away. As recently as 2006, I asked what psi really is, and parapsychologist Adrian Parker replied, "Is it reasonable to expect an answer after two months of research?" TMA has a fair chance of becoming one of those ever-recycled excuses in the debate over psi.

Such a status, though, would be unwarranted. Although I do not question Schouten's calculations, the widespread use of TMA is doubtful for several reasons.

First, it seems disproportionate to compare parapsychology with all branches of psychology put together. Many similar comparisons could be made without any clear implications. For example, we could compare similar investments in music acoustics during the last one hundred years with investments in all other acoustical fields. Perhaps that would yield a two-months figure too. So? The calculation would not automatically imply that music acoustics is underfunded or that it is a young science. Such claims would require more elaborate arguments. Thus, my main objection against TMA is simply that it does not show that parapsychology is young or underfunded. The conclusion is a non sequitur.

This is enough to dismiss TMA as a valid excuse for parapsychology's lack of evidence, but I wish to point out yet another problem. TMA is about human investments and money, but it substitutes those resources for time, as if they were convertible without further ado. They are not.

TMA says this: if you take all money historically granted to parapsychological research since the 1880s and spend it today on all researchers working in parallel within "ordinary" psychological science, the money would run short in two months. Sure, but, in reality, no one

would do such a foolish thing. It would be much smarter to grant money to fewer researchers working for a longer period of time. This would allow them to read one another's papers, to discuss them at conferences, to improve experimental setups, etc. Such work takes time. Simply publishing a paper in a refereed journal normally takes months or years. TMA does not acknowledge that time is a resource in research.

Time is also a resource for another reason. In merely two months, not many important results will be produced within neuroscience, physiology, perception psychology, physics, or other areas with possible impact on parapsychology. But enormous progress has been achieved in the past, say, one hundred years in those fields and in many subfields with sizes comparable to parapsychology. Parapsychology's potential for benefitting from progress in other areas of inquiry is entirely lost on TMA. This weakness in TMA was acknowledged by Schouten: "I realize that this comparison is over-simplified, since in the one-hundred years of our research we profit from developments in other sciences which will not be possible to such an extent in a two-month period."

Maybe you will say I am kicking an open door here. Isn't it obvious that TMA is a metaphor? Would anyone take it literally? Sadly, some people do. Adrian Parker, for example, seems to be completely serious when using TMA as an excuse for not having a definition for psi for me. He really believes that the efforts of parapsychologists during more than one hundred years are equivalent to two months of psychological research.

Claiming that one's area of research is young, underfunded, and on the verge of a breakthrough is quite common in many fields, not only within parapsychology. But, so far, I have heard nothing resembling TMA from workers in other purportedly maltreated fields. My conjecture is that parapsychologists have a particularly strong need for TMA, since their results are so weak. But I would recommend adherents of parapsychological research not to use TMA. It is a bad and empty metaphor that reveals nothing.

References

Honorton, Charles. 1993. Rhetoric over substance: the impoverished state of skepticism, Journal of Parapsychology 57: 191-214.

Parker, Adrian. 2006. Comment from Adrian Parker [in Swedish], Parapsykologiska Notiser och Nyheter [newsletter issued by Swedish SPR] 33, September 2006: 13.

Schouten, Sybo A. 1993. Are we making progress? In Psi Research Methodology: A Re-examination, edited by L. Coly and J. McMahon, New York: Parapsychology Foundation: 295-322.

Utts, Jessica. 1995. Response to Ray Hyman's report of September 11, 1995, "Evaluation of program on anomalous mental phenomena," Journal of Parapsychology 59: 353-356.



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