Letter to the Editor

Ethics, capital punishment, and pseudoscience

I was shocked to discover that *Perception* has published a paper, with the stated goal to compare the “possible” pain experiences of people killed by various methods of execution. This work appears to me totally out of the range of acceptable science, one that brings to mind the infamous medical ‘science’ of wartime Germany, or the more recently disclosed cases of ‘radioactivity research’ in postwar USA. I am especially dismayed by the fact that in the same issue of *Perception* an editorial was published that concerns the ethical aspects of our profession, but which nowhere refers to this extraordinary article. The editor states “I feel that I need input from others to help me think more clearly”. I would like to take up this challenge, especially because I have always been rather fond of the editorial policy of *Perception*, in its other aspects.

What makes this paper reminiscent of examples of German wartime medical ‘science’ is the particular combination of the following two factors:

(1) Its goal is to study the subjectively experienced effects of lethal injury, purposely inflicted on non-cooperating humans.

(2) By not expressing any form of opposition to it, the paper appears to accept the practice of wilfully killing defenceless people.

It seems to me obvious that any paper which can be characterised by these two factors should be disregarded and disclaimed by the scientific community.

But matters may be viewed from a different angle as well. In discussions about the ethical aspects of our profession, we should ask if there is any positive advantage to be gained from our efforts. In the case of the present paper, I do not think so. This paper will certainly not help abolish the death penalty. To the contrary, if anything, it will reinforce that practice, because it suggests how to execute “humanely”: use a syringe.

It may be argued that the paper’s conclusion (that all methods of execution are painful to the victim) can be seen as an argument against capital punishment in general. But this is not true. Discussions between opponents and proponents of the death penalty are not about pain. People are not opposed to capital punishment because it hurts, but because one should not kill if one can prevent it. And to proponents of capital punishment, pain is not the criterion for their attitude either. People are executed for revenge, out of fear, because it is believed that capital punishment is a means of crime prevention, or because capital punishment is called for by religious law. Pain does not feature in this debate.

I am not a proponent of capital punishment. But what if I were, and for humane reasons would be interested to learn how such punishment could be carried out with as little pain as possible? Would not the paper be helpful in this respect? No, it would not. If the author wanted to suggest methods to exclude or diminish pain during executions, why does he not do so, ie he might propose to put sleeping pills in the victims last cup of tea, or something like that. I am sure a creative mind can think of more such really painless ‘solutions’. But the point here is not even that the author makes no such suggestions. The point is that such suggestions are in no need of any scientific justification.

Hence, at best this paper misleads the reader: it may have the appearance of educating executioners to become more humane, while in reality it just serves to make particular current practices of capital punishment scientifically respectable.
But matters are still worse than that: even this scientific respectability is a hoax. The paper is simply not scientific, it is pseudoscientific. This actually makes the article dangerous: readers (in particular those from the nonscientific community) are actually fooled into believing that some methods of killing are scientifically respectable. Science is used here as camouflage, not as a means to gain insight. Hence the accusation that this paper is pseudoscientific is a heavy one, and I should explain what I mean: a paper is pseudoscientific if its contents lack scientific meaning, while its language resembles that of a scientific report. In my opinion this paper is a typical example.

Consider the contents. There simply is no scientific argumentation: no (perceptual) variables, measurement procedures, or hypotheses are mentioned, nor is any relation proposed with theory, and the article does not suggest methods for studying the relationship between pain and trauma. Furthermore, the paper is based on speculations and blatantly obvious truths of the kind one may hear at coffee break talks, not at scientific discourses. For example, what is scientific about claiming that it hurts more and longer if one is stoned, than when one is given a lethal injection? Is that a hypothesis in need of scientific proof? What is scientific about assuming that the pain caused by being executed is probably more than some people think (especially when victims do not faint)? What is scientific about the statement that a decapitated head may still feel pain for a few seconds, or that even if the pain is brief, one should take account of the time it takes before nervous impulses reach the brain? Do such contentions need scientific scrutiny?

This lack of scientific content is masked by the fact that in its form the article mimics a scientific report. For example, notice how often the author uses the obligatory gender neutral “him or her” when speaking about the executioners and their victims. The paper contains what looks like a methods section, characterised by an overabundance of detail. For example, many different kinds of execution are listed and described in separate sections, creating a false impression of completeness (eg the Spanish practice of strangling is lacking, and I am sure one can think of more). Full details of each kind of execution are given, including whether firing squads shoot standing or kneeling, and from how far away from the victims, in metres, and Islamic laws which cover the size of the stones are quoted literally, as if such details are of any relevance. This listing of irrelevant detail sometimes produces absurd remarks, eg that killing with a syringe must be done by a “trained nurse or technician”, because doctors may only “certify that the person is dead”. The implied exoneration of the medical doctors from responsibility is appalling. And, of course, the article includes tables, as would be expected from a scientific paper. They are filled with objective terms to protect the reader from becoming emotional, such as “withdrawal from stimulus” (which denotes one of the “signs” of pain). And, of course, there is quantification. Neat columns of pluses suggest a scientific quantification of pain. In reality these pluses are just anyone’s guess, as implied by the text itself, which states that the signs of pain may not be observed at all, may be prevented by “physical restraint”, or may stem from fear instead of pain. This leads to wondrous conclusions, eg all methods of execution get the same three pluses, apart from two: First, the ‘shooting’ method gets only one or two pluses and a question mark, because bullets presumably cause the sensation of only a “sting or punch” when they “rupture the skin”, and the author apparently does not know whether, or how much, pain is caused by bullets “cracking” bone (he seems more knowledgeable about ‘beheading’, as he gives three pluses to the sensation of “burning”, which he claims accompanies the “stretch of skin prior to cut”). Second, the ‘syringe’ method gets one plus because the needle might be “missing or going through the vein” (but the reader is warned: if “the prisoner ... does not cooperate ... the procedure becomes very fraught”).
In summary, this paper is pseudoscientific, because it contains just blunt surmises wrapped up in scientific terminology. As such, it is a dangerous product, that can only be used to drape certain methods of killing with a cloak of scientific respectability.

It may be argued, however, that the paper nevertheless contains some information that could be called scientific. I refer here to its meticulous descriptions of organ-, tissue-, and nervous damage, as caused by bullets penetrating the breast or the skull, by a decapitating axe, or by stones hitting a head “covered by a sheet”. In addition, the paper reviews religious and other laws, regulations, and customs that pertain to capital punishment in various societies. However, this kind of information may be interesting to medical practitioners who specialise in traumatology, to lawyers, and may be to anthropologists, but not to people interested in perception. Why such information needs to be published in a perception journal is beyond my understanding.

The above-mentioned editorial calls upon the scientific readership of the journal to invest more effort in a public debate about the ethical aspects of our profession. It seems to me that the author of the editorial is entirely right when he points a finger at us, individual scientists. It is indeed a serious problem that there simply is no consensus on many issues, because we differ so much in our views about what is ethical and what not. But this should not justify that we do not draw a line: there are some basic principles to which we all adhere: our profession should not be used to suggest ways in which the practice of wilfully killing defenceless people might gain even the slightest appearance of respectability. I have no wish to belittle or to evade my individual responsibility in this respect. However, I would expect a public scientific journal like Perception to draw this line in its editorial policy as well.

Postscript: Please note I have not referred to this article in the conventional way (i.e. by mentioning author, journal, and publication date). This was done on purpose, to keep its citation rate as low as possible. I advise others to follow this practice.

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Editor’s comment
The decision to publish the paper was made for two reasons. First, the usual refereeing process was employed and the referees recommended publication after revision. Second, the paper was essentially a review of material which is all in the public domain. The novelty was seen to lie in an attempt to judge the degree of trauma to which people were subjected; no similar review was known to exist. Given the obvious difficulties of obtaining relevant data, it was felt that no substantial methodological improvements could reasonably be expected.

We saw no ethical reason for withholding publication of a review of public-domain material. Medical and legal texts deal with the issues already, but in their respective domains. Whatever one’s own views on capital punishment, the fact remains that, in many democratic societies (especially USA), this penalty is used. Given this, one can imagine that an informed discussion of the relative merits of different forms of execution may be seen to be a valid endeavour.

The editorial had a slightly different purpose. Its aim was to encourage debate on the ethics of a certain class of research funding. The point was that accepting defence-funded contracts implies a degree of trust in the wisdom and honesty of those who would have access to the results of the work. Whether we should have that trust or not seems to be somewhat finely balanced: hence the question.
The paper on the possible pain experienced during execution by different methods starts from a different point: the actions are already in progress and have, as in the case of the USA, been sanctioned by our democratically elected legislatures. It is difficult to argue that providing information on such matters is unethical (as opposed to distasteful).

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