

# Ethical Issues in Teaching About Research Ethics

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Ethical issues in the conduct of research is an important topic in research methods courses for graduate students in many Faculties of Education. The authors relate their experiences in teaching this topic over several semesters using a simulation of the well-known research into obedience by Stanley Milgram in the early 1960s. Students' reactions to the use of the simulation at both emotional and intellectual levels are described and discussed, as is the ethical dilemma those reactions have created for their teachers in contemplating future use of such emotion-charged teaching approaches.

## Introduction

This paper is placed in the context of teaching about ethics to postgraduate students. However, its primary focus is on the ethics of some approaches to teaching and especially the use of emotion-charged simulations in the classroom. The paper reports on some experiences of teaching about ethics in a class of post-graduate students enrolled in various research degree courses which were based on the work of Milgram in the 1960s. It does not purport to be a commentary on Milgram's work, and neither does it attempt to add to the research literature in ethics *per se*. Rather, it seeks to raise ethical issues which confront teachers of research methods courses when they seek to encourage their students to confront their own ethical responsibilities.

In recent years, there has been increasing concern in Australian academia about ethical issues in research, and the requirements on post-graduate research students by university ethics committees have become ever more demanding of students and their supervisors. While the motivation behind many of the recent changes appears to be fear of possible litigation, Deutch (1996: 56) has pointed out that an important goal of graduate education is for students to develop an internal set of ethical standards that will guide them through their professional careers. He points out that, although the United States National Institute of Health now requires that graduate students supported by federal grants receive formal training in research ethics, there is little consensus about how this should be accomplished.

Vandervoort (1995: 39) has pointed out that several kinds of misconduct are generally recognised by the scientific community. The most serious is fraud, which he defines as 'the deliberate fabrication, plagiarism, or falsification of information which results in damage to others'. Other dishonourable behaviours include 'trimming' data to make them look better than they are, 'cooking' results by discarding data that do not fit the researcher's current idea of how they should look, and outright forgery – inventing results.

While history is replete with examples of eminent scientists whose integrity

has been challenged, including Charles Darwin, Gregor Mendel and Louis Pasteur in the physical sciences and Sir Cyril Burt in educational psychology, as a proportion of all scientific work, flagrant cases of scientific misconduct are fortunately very rare, not least due to the processes of peer review whereby grants are awarded for the initiation of projects and publications are checked prior to the dissemination of research findings. However, ethical issues in research also include what Langmuir (1989), cited in Vandervoort (1995), has called pathological science. This he defines as 'the science of things that aren't so' and occurs when scientists become so involved in their work that they are incapable of detecting flaws in procedures or results. Such error, he suggests, is not deliberate, but results from a self-induced blindness brought about from over-enthusiasm.

While most researchers have little difficulty identifying the types of behaviour mentioned above as unethical, the issues of confidentiality, informed consent and the experimental mental manipulation of human subjects and the conduct of research in sensitive areas such as intelligence, race, sexuality, gender roles and behaviour, appear to us to be of much more immediate concern in educational research and at the same time to be much more complex matters on which to reach consensus, and therefore about which to teach.

Bibby (1997) points out that there is much more to both ethics in research and ethics in education than avoiding litigation. He suggests that the very absence of successful legal accusations of teacher negligence in instruction may be a reason for a general lack of discussion on research ethics in education. However, he also points out that the lack of challenge may reflect a general view that failure to educate does not constitute a harm. Bibby (1997: 2) suggests that we should pause for thought before accepting too readily the taken-for-granted moral judgement that a teacher may try something out in a class, and report the results to colleagues and academics. He emphasises that far beyond the legal ethical requirement to avoid doing harm, there is a moral requirement for educators to further educational ends, which he appears to define in terms of the development and exercise of rational autonomy and hence, fundamental human good. While it may be morally defensible for an individual to engage in educational research without any commitment to secure educational benefit, Bibby insists that it is not permissible for the educational research community as a whole to lack that value, and by implication, neither would it be acceptable morally for teachers who may also happen to be interested in researching their own practice to lack such a value.

Herein lies our dilemma. As teachers we wish to 'experiment' with innovative teaching strategies, but morally we must ensure that in so doing, no harm befalls our students. On the other hand, to maintain the status quo in teaching approaches may also incur a 'harm-cost' by default. As researchers of our own practice, we may be able to justify our actions using a different morality, but as teachers, we must abide by the morality of seeking an educational good. As Bibby points out, in spite of centuries of work, there is still no single definitive moral theory to which we can appeal to settle such moral issues. The literature in this area is surprisingly small, and it is to this small literature that we hope that the present opusculum will contribute.

For some years we have worked as a team in teaching research methods units at Masters and Doctoral levels, and have developed various approaches to

promoting in our students an awareness of ethical issues in research. One such approach has been to simulate one of the experiments undertaken by Milgram in the early 1970s into obedience, and subsequently to compare this work with that of others in which the Barnum effect is evident. The Barnum effect has been defined by Beins (1993) as that which occurs when individuals are duped into believing invalid results of psychological tests.

Our choice of Milgram's research as the basis for our simulation rested on the fact that it is one of the few well-documented examples of non-fraudulent research in the social sciences that has been subject to strenuous challenge on ethical grounds for which full details of the original research, the grounds on which challenges were mounted, and the responses made by the researcher and others are available. We recognised the potential for a simple classroom simulation in the accounts of Milgram's work provided by Dixon (1987).

The classes are usually of about 15 students, the majority in fairly senior professional positions and typically in their mid-thirties. The session specifically devoted to ethics occurs towards the end of the semester when we have developed a friendly and relaxed relationship with the class. While the responses of our students have usually been very favourable and the discussions on the ethics of research that have resulted have been invigorating and perceptive of the difficulties faced in this area by researchers, we have been criticised by some students who have found the issues raised by both the simulation technique adopted and the substantive examples used to be deeply disturbing. The focus of this paper is the extent to which it is ethically appropriate in teaching at tertiary level to raise emotional issues with our students in the absence of perfect knowledge of the emotional health of those same students.

### **The Work of Stanley Milgram**

Stanley Milgram was Professor of Psychology at Yale University, Connecticut, USA. In the aftermath of the Second World War, he was interested in what has been called the Eichmann syndrome.

When Eichmann was put on trial in Israel for the war crime of sending millions of people (especially Jews and Gypsies) to their deaths in the Nazi extermination camps, his defence was that he was only obeying orders. This was an interesting plea against conviction for mass murder. If it were accepted, then it would exonerate all but one of those who played a part in what the Nazi party believed would be the 'final solution'. From the guard on the train that carried people to the death camp to the man who tipped the canisters of Zyklon B into the gas chamber, all were simply carrying out their orders. If admissible in court, then it should, in principle, exonerate all but the man at the top of the liquidation programme. However, the court rejected the plea as an adequate defence, and Eichmann was hanged.

Although the plea was unsuccessful, the Eichmann case raised further questions in Milgram's mind. Did the 60,000 people whose job it was to exterminate six million Jews carry out their duties because they were obedient to orders from above, or because they were evil or violent people, glad of the excuse (the accepting of orders) to exercise their violence, or was it because they were both obedient and violent? Milgram approached these questions by asking a further, simpler

one: could obedience alone drive people who are not potential murderers into cold-blooded destruction of their fellow human beings? (The investigation of acts not committed in 'cold blood', i.e. as a consequence of some strong emotion, would not succeed in isolating obedience as the crucial variable). This was the question to which Milgram addressed himself. He also questioned whether there was something in the German character that made them more able to contemplate the horrors of the holocaust. However, he decided to begin his investigations with members of the general public, ordinary middle-class Americans, who responded to the advertisement reproduced (Figure 1).

Note that the advertisement gave no details about the forthcoming experiment; nothing about punishment; not a word about electric shocks. The study was stated to be solely about 'memory'. However, those who answered it were invited to act as teachers in an experiment which purported to investigate the extent to which punishment might facilitate learning (memory). The 'learner' sat in one room, the 'teacher' in another. Every time the learner made a mistake the teacher had to administer an 'electric shock'. As the number of errors increased so the teacher had to increase the severity of the shock.

### **The results of Milgram's experiments**

The results from a number of such experiments were unequivocal in answering Milgram's primary research question. Despite the fact that the teachers (the real subjects of the experiment) believed the shocks were extremely painful and could hear the 'screams' of the learner, many of them had little hesitation about moving the shock-control lever to the further end of the dial, way past the point marked 'Danger 450 volts'.

Furthermore, when there was no vocal feedback such as grunts or screams from the 'victim', most of Milgram's subjects went blithely up to the maximum punishment voltage. When vocal feedback was introduced, some of the subjects became increasingly disturbed at what they believed they were doing to the learner. However, this rarely led to any moderation of their behaviour.

### **Simulating Milgram's Experiments in the Seminar Room**

When we first began to use the work of Milgram to promote discussion on ethical issues in research in 1995, we began by showing the class the advertisement and asking how many would agree to participate in the experiment. Few students expressed any concern and we discussed their understanding of what might be involved in some detail. No one regarded the request as in any way potentially unethical although some comments on gender-biased language were made.

We then drew a 'control panel' in white chalk on a table top and invited one of our students, Doug (not his real name), an experienced manual arts teacher in his early forties, to be the 'teacher'. One of us took the part of the victim while the other was to be the researcher (Milgram) standing beside the teacher asking the questions of the victim and encouraging the teacher to administer the shocks using the virtual button on the desk. However, once the 'real' purpose of the (simulated) experiment was revealed, Doug excused himself from participating, explaining that he could not imagine hurting anyone else, even in a simulated

**Public Announcement**

**WE WILL PAY YOU \$4.00 FOR  
ONE HOUR OF YOUR TIME**

**Persons Needed for a Study of Memory**

- We will pay five hundred New Haven men to help us complete a scientific study of memory and learning. The study is being done at Yale University.
- Each person who participates will be paid \$4.00 (plus 50c carfare) for approximately 1 hour's time. We need you for only one hour; there are no further obligations. You may choose the time you would like to come (evenings, weekdays, or weekends).
- No special training, education, or experience is needed. We want:
 

Factory workers	Businessmen	Construction workers
City employees	Clerks	Telephone workers
Professional people	Laborers	Barbers
White-collar workers	Salespeople	Others

All persons must be between the ages of 20 and 50. High school and college students cannot be used.

- If you meet these qualifications, fill out the coupon below and mail it now to Professor Stanley Milgram, Department of Psychology, Yale University, New Haven. You will be notified later of the specific time and place of the study. We reserve the right to decline any application.
- You will be paid \$4.00 (plus 50c carfare) as soon as you arrive at the laboratory.

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TO:  
 PROF. STANLEY MILGRAM, DEPARTMENT OF  
 PSYCHOLOGY, YALE UNIVERSITY, NEW HAVEN, CONN.  
 I want to take part in this study of memory and learning. I am between the ages of 20 and 50. I will be paid \$4.00 (plus 50c carfare) if I participate.

NAME (Please Print) .....

ADDRESS .....

TELEPHONE No ..... Best time to call you.....

AGE ..... OCCUPATION ..... SEX .....

CAN YOU COME:

WEEKDAYS ..... EVENINGS ..... WEEKENDS .....

**Figure 1** Reproduction of newspaper advertisement as used in class simulation of Milgram's research (after Dixon, 1987)

environment. His place was quickly taken by a young woman and we proceeded with the simulation.

After simulating Milgram's experiment, we discussed both his findings and their interpretations from an ethical point of view, referring both to Baumrind's criticisms which may be regarded as bringing Milgram's career to an end (Baumrind, 1964), and to work by Sheridan and King (1972) reporting similar work. (Further explanation of this aspect of the teaching session will be left until later in the paper.) We also discussed the feelings of the class about the event and gave each member the opportunity to venture an opinion, not only on the substantive issue of the ethics of Milgram's work, but also on the simulation and the way in which the class had been conducted. We received overwhelming support for this style of teaching. Doug explained that he found the simulation a powerful learning experience and reiterated that he did not want even to pretend to hurt anyone. However, when asked, he had no hesitation in supporting the teaching strategy and confirming that we should 'do it again in the future with another class'.

A week or so after this initial class, Doug came to us bearing a white plastic box with an electrical cable, wired wrist bands and small indicator lights, switches and dials across its 'control panel'. He presented the machine to us and said that it would help us to implement the Milgram simulation more effectively in future. He showed us that, although it is equipped with a mains cable and wrist straps, there is no electrical link between the two and no way in which the teaching machine can administer a shock. As a stage prop, it has proved to be very effective.

The next semester, we ran the simulation again. This time, we had little problem finding a volunteer to be the teacher and our own acting abilities appeared to have improved. The simulated pain reactions in the victim as the voltage was increased brought forth some laughter from the class. However, while we sensed the stress in the laughter, at the time we were unsure whether it represented discomfort on the part of the students, or embarrassment at our Thespian attempts. Towards the end of the simulation, one woman left the room, apparently in some distress. She remained outside until the mid-evening break and then returned for the discussion. She explained that she found the simulation very uncomfortable and that she did not want to remain with the personal trauma that she was experiencing. Faced with this reaction, and wondering if the intensity of the session was too strong, we asked those who wished to do so to give us anonymously their written reactions to both the choice of example (Milgram's work) and the method of presenting the class (the simulation). Of the twelve students in the room, eight presented us with their written thoughts. While almost all considered that Milgram had acted unethically in devising his experiment, none regarded the mode of presenting the session problematic. Comments included:

I found this to be a very interesting way to introduce ethics in research. Because of the nature of the experiment and the reality of it through enacting it, I found that I was examining my thinking very actively.

Yes, I think you ran it [session on ethics] well although others may disagree.

Ethics is a highly volatile area. I thought the example [simulation] made the point extremely dramatically and was carried out quite ethically. One often has to engage in a process itself in order to come to terms with it. I felt/thought that this afternoon's session did that.

Somewhat reassured, we ran the session a third time. We informed the class that we were going to raise a number of issues that some people might find disturbing, and emphasised that, should any students feel uncomfortable, they should leave the room. A staff lounge with tea and coffee was available next to the classroom. Furthermore, we said that if the class as a whole felt that the simulation was disturbing or distasteful, they should tell us and we would stop forthwith.

We proceeded as before, and again we experienced stressed laughter. The debriefing that followed revealed that two students were quite disturbed by the direction of the session, although neither found it necessary to leave the room. One student, a man, revealed that members of his family had been involved in the holocaust and he found the discussion distasteful. A second, a woman, had undertaken undergraduate study in psychology at another university where it was mandatory for such students to participate as subjects in various experiments. She had been involved in a sensory deprivation experiment without her informed consent being sought and found that our session brought back memories of her distress at that time (some twenty years earlier). The class as a whole was divided on whether the learning and understanding gained by simulating Milgram's work justified the risk of causing discomfort to some such students.

After this experience, we met as a teaching team to discuss future strategies. With the next cohort of students, we told the class about our simulation, and showed them the teaching machine. Without simulation, we talked through the experiments and told them of the discomfort expressed by other students. Finally, we asked them to write down their reactions to Milgram's work and to explain how they *would have felt*, had we undertaken the simulation with them.

Responses varied considerably, the majority of them focusing on students' personal reactions or their assessment of the 'virtual simulation' as a relevant and effective strategy for teaching about research ethics. Personal reactions sometimes were negative, such as 'I personally find Milgram's findings disquieting – I'd rather not know the percentage that administered the pain'.

While this student provided no explanation for her/his preference to remain ignorant of the details of Milgram's research, another shared concerns with us on a very personal level.

I have found the discussion also very disturbing. It has reawakened in me experiences that though I have discussed them with others in the past, I have still not adequately dealt with. The discussion at times evoked alarming physical reactions of panic, and I do not believe that I would have been able to sit through a demonstration of the machine. Its mere presence was enough to prompt discussion on an academic level but this still made me feel very uncomfortable ... I would not recommend role playing the experiment. The example is the extreme.

Some students reacted positively, with comments such as 'At the personal

level, I felt quite comfortable with the strategy used tonight ... I love these types of discussion'. However, this same student qualified her/his response with '... but I am aware that some "role plays" can disturb sometimes'. Another student recognised the potential for personal discomfort if the simulation had proceeded, despite rating the virtual simulation as a 'good teaching strategy'. This assessment was followed by the somewhat more detailed reflection:

I admit I would have felt uncomfortable if the experiment had been conducted in the class. I know I would have been aware it was a simulation but I still feel it would have generated a feeling of discomfort. I don't know if creating a feeling of discomfort is necessarily a 'bad' thing because I feel that we are often complacent about these issues.

In relation to the relevance of Milgram's research to the ethics of contemporary research in education, our students were divided in their opinions. These ranged from '[the example] helped in informing about how one should consider ethics in research' to 'The ethics of any such experiment seems so far removed from anything I would consider conducting or being involved in that it has not changed my views'.

There was more unanimity concerning the effectiveness of the virtual simulation as a teaching strategy. Not one of our students, all of them experienced teachers, condemned it on pedagogical grounds. Typical assessments were 'it prompted me to think more deeply on the issue', 'it certainly raised the level of discussion' and '[it] created discussion and made me realise the issue of ethics is much more than an explicit set of guidelines'.

What we discovered from the students' reactions to the virtual simulation of Milgram's research was that students reacted to it at a personal emotional level, or at an intellectual level as experienced educators, and sometimes an individual's reactions included both emotional and intellectual dimensions. Far from assisting us to resolve our dilemma, this discovery left us more deeply bemused. While valuing the demonstrated effectiveness of our teaching strategy to engage students intellectually with ethical issues relating to the conduct of research, and not eschewing the value of emotional engagement in the learning process, we were surprised and unsettled by the potential for trauma for a small minority of students resulting from even a virtual simulation of Milgram's research.

We have found the discussions which have followed our various simulations and accounts of the work of Milgram both fascinating and disturbing. While accepting that there are many aspects of Milgram's work which would contravene the requirements of many university ethics committees today, the willingness of some students to generalise from his experiments in which no one was physically hurt at all, to the use of electrical torture in some of the less democratic countries of the world, is disquieting. One of our students wrote afterwards:

... the follow up [to the simulation] where the simulation of past years was discussed and explained I found made me angry as I felt that serious and horrific acts which thousands of people throughout the world have been and still are victims of, were being made light of ... 'Hamming up' such atrocities to me is offensive. The torture of people is not a subject to be made light of ... Making light of the acts involved not a good idea. It offended me



and may have seriously upset others with unknown background experiences.

### Putting Milgram into a More Recent Context

Baumrind (1964) was one of Milgram's most severe critics and her criticism was based on three ethical considerations:

- first, he was wrong in deceiving his subjects as to the true purpose of the experiment;
- second, as a necessary part of this deception, he was wrong in letting them believe they really were inflicting pain on another human being;
- third, worst of all, he was wrong to put them in a conflict situation that some of them found stressful.

Interestingly, while our students invariably identified all three criticisms in their debriefing discussions, they justified their greatest disapproval of Milgram by reference to the third.

Even when we presented a number of counter-arguments, some of which Milgram included in his reply to Baumrind, and others which were identified by Dixon as late as the mid-1980s, many students refused to countenance any justification. These counter arguments included the defences that:

- his subjects *volunteered* to take part in the experiment;
- neither Milgram nor any of the psychologists whom he consulted *before* the investigation believed that these volunteers would behave in the way they did;
- apart from what appeared to be their inborn urge to obey an 'authority' figure, there was nothing to stop them refusing to comply with the instruction to deliver near-lethal shocks;
- after the experiment all subjects were fully debriefed and assured that they had not in fact hurt anybody and had nothing to be ashamed of – that their behaviour was normal and understandable; and
- far from criticising Milgram, his subjects maintained that, though stressed, they were glad to have taken part and discovered important aspects of their own psychology.

As part of the follow-up discussions with our students, we present quotations (cited by Dixon, 1987) from some of Milgram's participants taken from follow-up interviews undertaken some considerable time after the original experiments. After extensive discussion on the potential problems caused by unthinking obedience to authority, one of the participants in Milgram's original study wrote:

You have discovered one of the most important causes of all the trouble in the world ... I am grateful to have been able to provide you with a part of the information necessary for that discovery ... With sincere thanks for your contribution to my life.

Comments from other participants included:

This experiment has strengthened my belief that man should avoid harm to his fellow men even at the risk of violating authority.

I think people should think more deeply about themselves and their relation to their world and to other people. If this experiment serves to jar people out of their complacency, it will have served its end.

However, while a number of the male students in our groups have been prepared to consider that in some cases the research end may indeed justify the methodological means, most of the women discard these statements from participants on grounds which can be summarised as follows: we *know* that too much obedience is a bad thing – the experiments were unnecessary.

It is at this stage that we have introduced, also based on the work of Dixon, the research undertaken by Sheridan and King (1972). These researchers repeated Milgram's experiment, but this time the learner was not a human actor but a puppy, and the shocks were real. The results were similar to those obtained by Milgram, but there was an additional and disquieting discovery. Despite the fact that they could hear the yelps and howls of their canine victim, *all the female* subjects in this study used the maximum level of shock. It seems that, in this instance anyway, the need to comply with the instructions of an authority figure is stronger in women and can override the more maternal, compassionate feelings with which they are normally associated.

Few of the women in our classes are willing to accept the findings of this research. Frequently they will assert that there must have been other factors (usually unspecified) of which we are not informed by the researchers which must have affected the findings. Even when, on one occasion, a male student with training in anti-terrorist operations in the Australian armed services confirmed that women terrorists are regarded as being more dangerous than their male counterparts, the women students in the class refused to accept his statement. Some students have suggested that this research is so extreme and far from anything that they would ever be involved in within a Faculty of Education in the late 1990s, that to suggest that they could be faced with similar decisions as was Milgram is ridiculous. Even more students have said that they feel that such research is so unethical that it should be banned regardless of any potential benefits. However, while such comments are of interest in a discussion on research ethics *per se*, the focus of this paper is not on whether these types of research would or should be permitted at the present time, or even the fact that Milgram's research has been criticised and defended by some using arguments likely to be relevant to some contemporary research in education, but whether there is an ethical problem for us. In presenting examples from the past in class in such a way that consideration of some of the emotional issues of the original research is inevitable, are we compromising the intellectual engagement by our graduate students as they consider ethical issues in relation to their own research projects?

### Conclusions About the Teaching Approach

As noted above, while the majority of students have acknowledged that the discussion about Milgram's and Sheridan and King's work is fascinating academically, some have questioned why we wish to choose such potentially emotionally charged issues and why we have chosen to simulate the experiments in the classroom.

In planning each successive presentation of the unit, our discussions as teach-

ers have constantly returned to Dewey's (1929) assertion that for the experience of education to be educative, it needs to provide a continuity of experiences and that the continuity of experience requires learners to be led to understand the relationships between what they learn in the present and their past and future experiences. In the context of our research methods course, we are conscious of the expressed intention of many of our students to conduct qualitative research in which they will likely claim to be able to bracket their prior conceptions or suspend personal involvement in the interests of quality research outcomes. We wonder about the ability of some of our students to separate emotional and intellectual engagement. This leads us to speculate about the extent to which the rhetoric commonly found in 'the Methodology chapter' of theses is matched with reality in the conduct of some graduate students' qualitative research projects.

For over a hundred years, educators have emphasised the importance of experiential learning, and in science education, and geographical and environmental education, our own 'home disciplines', laboratory experiments and field work are regarded as essential learning experiences. Visits to modern museums and heritage sites (and in the present context, visits to the concentration camps of eastern Europe immediately come to mind) constantly remind us that both curators and public place great faith in recreating both emotional as well as physical experiences in order to achieve their educational objectives.

We reassure ourselves that the 'hot learning' situations we try to engender are at least as justified as the hot interpretations beloved by our historical and environmental education colleagues. We take heart from Moliterno's (1996) forecast that professional ethics in clinical legal education will be taught in a context of experiential learning by early next century. We maintain with Lederman (1992) that the purpose of providing learners with experience-based learning situations coupled with learner-based debriefing sessions in which participants are encouraged to examine and analyse their inner thoughts and reflections goes far to overcome the limitations of the traditional didactic lecture approach. Thankfully, many of our students agree, and encourage us to persist with the Milgram simulation, or equivalent strategies, despite the reservations and personal discomfort of some. However, we are still reflecting on whether the discomfort during the simulation and its debriefing activities experienced by some students is a justifiable cost for the educative benefits achieved by the remainder. Are we, in fact, engaged in a pedagogic equivalent of the pathological science described above? Is our own pedagogical enthusiasm blinding us to the discomfort of some of our students?

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