Chapter 10

The Ethical Classroom - 1997 – 2004

Questions:

What does it mean to develop ethics in science?

What role does science have in developing student's moral development line?

What does it mean to have a code of ethics as a scientist?

> "Every act has *potential* moral significance, because it is, through its consequences, part of a larger whole of behaviour."
>
> John Dewey

Introduction

So far, the incorporation of Holistic Education principles in my teaching has led to extending my pedagogies to improve student learning, seeing my students as complex multi-dimensional beings with different learning needs, helping them experience the wonder of the universe in a connective way, empowering them to think for themselves and work together, and enabling them to bring in their own questions and passions. Along the way I have seen students develop, flourish and transform. But this has been ancillary to my main role as a subject teacher which is to help my students experience and understand physics, albeit with soul.

Enter Travis, the boy from the last chapter, who puts his own learning not just before others, but at their expense. What is my role here? Am I responsible for his ethical development? What values am I bringing when I make the judgement that he *needs* ethical development? His lack of care for others is a big concern to me and I am worried about what sort of engineer he might make. His lack of ethical maturity is obvious. But, what about behaviours and attitudes of other students that are less obvious or less offensive? What have I been blind to in the past? How do I see ethics and my role in creating an ethical classroom? What does it mean to be an ethical person and what might an ethical classroom look like?

How could Holistic Education help me in this? The development of an ethical self, who is able to act wisely, integrating heart and mind, is central to the principles of Holistic Education as well as most spiritual and indigenous traditions.

For Rudolf Steiner, an aim of education is to develop an individual who has 'ethical freedom' – this does not mean a licence to do anything; rather it is someone who is self-aware, understanding the constraints and influences which shape their thinking, feeling and acting. It is about developing such an understanding of self in the world that when one acts, one acts with insight and wisdom (Childs 1996). It is someone who is on a path to self-realization and freedom.

So is this an ethics which comes from intellectual understanding? If so, how can I help my students gain a better intellectual understanding of what they do as ethical beings and are my efforts in developing meta-cognition in thinking useful in building ethical understanding?

But wait, Steiner also says that such ethical behaviour has to be grounded on development of the emotions (care) and an aesthetic appreciation (sense of beauty) which fosters a deeply held sense of respect, so judgement comes from both heart and mind. How does one foster that care? Is it natural, flowing from a loving heart? Can it be learnt? How does one foster an aesthetic sense? Am I helping my students gain respect for nature and all life through encouraging an enchantment and deep connection with the world? (Chapter 6) Could I be doing more?

Greg Cajete (1994) , Indigenous Holistic Educator, describes the importance of the *highest thought* in Indian traditions:

> The indigenous ideal of living the 'good life' in Indian traditions is at times referred to by Indian people as 'striving to think the highest thought'. This metaphor refers to the framework of a sophisticated epistemology of community based ecological education. This is an epistemology in which the community and its mythically authenticated traditions support a way of life and quality of thinking which embodies an ecologically-informed consciousness.
>
> Thinking the highest thought means thinking of one's self, one's community, and one's environment richly. This thinking in the highest, most respectful and compassionate way, systemically influences the actions of both individuals and the community. It is a way to perpetuate 'a good life', a respectful and spiritual life, a wholesome life. Thus the community becomes the centre for teaching and a context for learning how to live ecologically. *(pg 46)*

How is ethics in science seen? Does it aspire to helping students gain *ethical freedom* or the *highest thought*? Is it grounded in care and respect? Is it grounded in values which are ecologically based, spiritually based or community based? Is science value free?

Hmmmph. I am a teacher of Year 12 Physics, not a provider of a whole school program to develop an ethical self! I have a syllabus to cover with perhaps a little room for some discussion on some ethical issues in physics. Physics is about objectivity, not emotions! Surely. But now I am faced with some incidents in my classes – physics, journalism and maths which now challenge me to rethink my notion of ethics and my responsibility as a teacher. Come with me as I am faced with one dilemma after another. Perhaps through this journey we might begin to see some of the issues for teachers in trying to develop an ethical classroom.

Case 1: Why does a chicken walk around when its head is chopped off?

Warning this holds a scene which may disturb some readers

1998. It is the fourth week of physics and my students are giving group presentations where they take a practical situation of their choice and analyse it from a forces point of view, particularly showing how Newton's Third Law might apply (for every action there is an equal and opposite reaction.)
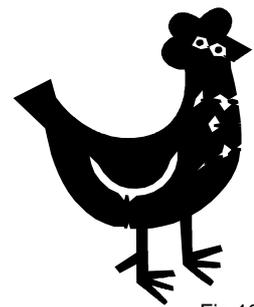
Fig 10.1

Danni and Ryan are up the front of the class explaining why a chicken will still move around once its head has been chopped off. They draw on the board a diagram of a chicken and explain the two nervous systems and how each one applies a particular force on the chicken. They draw the vectors and explain how the autonomous nervous system is still in operation for a little while after the head is cut off, which is why the chicken continues to move. I am interested in the way they have brought in ideas from biology, but I am sceptical about their modelling of the forces.

Then they turn on a video and before I have time to react we all see film footage of a Ryan grabbing a live chicken in a field, putting it on a chopping block, chopping its head off with an axe, and then the chicken walking around, a fountain of blood cascading from its neck. Danni and Ryan are giving commentary on the forces acting on the chicken. I am frozen, breath in. So is the rest of the class. Eyes wide, hand moving to mouth. Shock. Laughs uncertainly. Shakes head. Stunned.

WARNING

My students have just killed a chicken in order to do a scientific experiment.

I am hearing words like "gross", "yuk" and a bit of laughter around the room.

"Uh," I say, "um... you just killed a chicken... um... what about the ethics of doing science?"

"Oh," says, Ryan blithely, "We were having it for Sunday dinner anyway."

Yes, he and Danni, it is revealed, both live on farms and killing chickens is a natural part of life and the order of nature.

*"Even so, is that ok? Is it **ethical as scientists** to kill animals for an experiment?" I ask the class. "Is anyone else concerned?"*

Scott (who is into philosophy in a big way) says in an authoritative manner "Well, to consider whether their actions are ethical or not we would need to consider their intentions. We eat chickens for food and have no compunction about killing them. So if their intention was to eat the chicken anyway, and the experiment caused no more pain than the chicken would normally experience then what they did is not unethical."

Students are nodding. No one seems prepared to question Scott's judgement. I still feel uncomfortable, but haven't quite worked out what to do or say next. Should I be looking at the ethical issues of animal testing in general, discussing when is animal testing OK and when isn't it, drawing out the issues more? Should I be asking whether we should have a code of ethics and a process of review in our classroom to approve scientific experiments that students wish to conduct? I have never had to worry about this before as the only things that students normally conduct experiments on are inanimate objects.

Scott might have given a logical justification for killing the chicken, but what about the ethics of showing a scene like that without giving any warning to the audience? Where was Ryan and Danni's concern for us? What about giving us some warning first, giving some option for not watching if it was going to cause distress? How are the other students coping with this? Are they shocked or distressed?

But it is all taken out of my hands. Andrew asks Ryan and Danni if they can show the video again as he would like to now analyse it further. "I don't think your explanation of forces really covered the full motion of the chicken." he said. "Why was it going around in a circle? What other things could cause that?"

And we are away on a discussion of chicken anatomy and vectors with the ethics long forgotten.

How are you feeling after hearing this story? Were you surprised, shocked, disturbed? Was my warning sufficient?

How would you have responded if you were the teacher of this class? How could you have used this opportunity to explore the ethics of the situation? What does this situation tell about the ethics of my students or myself? What might be the responsibility of the teacher to perturb students' ethical positions and help them develop ethical thinking, awareness, and action? How important might be discussions around issues like these in helping students develop their own values and standards?

Let us explore this a little deeper. (Can we discuss ethics without understanding the players, their intentions and culture? Noddings (1984) would suggest that women need to understand the real situation before exploring issues in ethics because they are bringing both *natural care* and an *ethic of care* to the situation. To do that it needs to be personal and particular. In contrast men are more able to deal with abstractions and hypotheticals, applying principles to situations in which they do not need to know all the nitty gritty.)

Meet Ryan and Danni. These are two students who are very caring, friendly and helpful. You met Ryan in Chapter 4 on Spirituality – he went up to his friend and praised him for being his friend. They are both keen to become veterinarians, saving and caring for the lives of animals. Normally they would be concerned about the effect of their actions on others. But in this instance it never occurred to them that killing a chicken for a science experiment might be problematic – if anything it value-added it's otherwise pre-determined death as Sunday dinner. It didn't occur to them that city students might not be used to seeing a chicken killed. For them it was part of the daily life of living on a farm. Their care for animals is in the context of understanding that they are working animals – providing income and food – you care for them well when they are alive and give them a quick humane death.

So perhaps a key to help Danni and Ryan develop their ethical selves was not necessarily to challenge their notions about the role of animals in life or science, but to increase their locus of awareness about the impact of their actions on others. To realize that they were coming from one culture and that they need to project themselves into other people's worlds and predict what might be their experience. If someone in the class had been obviously distressed, I believe that both Danni and Ryan would have been totally surprised. They would be very sorry. It would have been wonderful feedback for them…. Perturbing their view that their perspective was the only one… and being a salutary lesson on needing to predict other perspectives.

However, they got very mixed messages. When we are shocked we react differently. So while some students were concerned (months later, Tiffany wrote in her journal that she still wondered about the chicken) this concern didn't really get across to Ryan and Danni who were very much in their performing roles as presenters. If I had been on the ball and actually seen this as an issue and opportunity for Danni's and Ryan's ethical growth I would have made more of the audience's reactions and later debriefed the presenters… helping them to see the issues.

Why didn't I? Because back then my view of ethics in science was having a philosophic discussion, like Scott, about the pros and cons of ethical actions. Even though I was concerned about connecting my students to the big ideas in physics, I hadn't actually applied any thinking to the notion of what it might mean to deeply connect my students to ethical issues and the issue of being an ethical person. Although I believed I was an ethical person, I had not made explicit to myself what that meant nor how I had become one, nor the fact that my ethics might be culturally dependent and part of a spectrum of ethical development which continued to develop. I did not see my role as a physics teacher as assisting in the development of students' moral development lines, rather I saw ethical discussions as something we do to make physics more interesting and "girl friendly".

For me, ethics in science constituted discussing issues like *Should we be funding research into space when people are starving in the world? What is the responsibility of mobile phone companies when research indicates mobile phones have some effects on the body?* Yes these are questions we can stand back from… weigh up different sides… sometimes make judgements, sometimes recognize it isn't black and white, but grey … sometimes realize that we need to find compromises to live the tensions. Sometimes realize that we can not find a position where we all agree. Useful discussions, but we are disembodied from them. Once the ethical dilemma is resolved in a satisfactory way we can get back to work. Have we been changed by thinking about such issues?

Andrew is another very caring person. He goes out of his way to help others in the class, taking time to explain things they don't understand. Yet, the ethical considerations of chicken killing just washed over him. Can we have compartmentalisation in our ethics and ethical behaviour? Can we care about people and not about animals, the environment or ecology? Is there a *locus of care*, a *proximity of care*, of only caring about *beings like us*?

Scott, the whole class knows, is on another planet. The philosophy planet. If he has an idea or believes in something then he will push it, often talking over the top of people, not maliciously, but just unaware that that is what he is doing. His authoritative manner often shuts down conversations unless he is debating with someone as mentally agile as Andrew, in which case they enjoy the cut and thrust of intellectual debate. Scott seems to be in a mental world where his experience is mediated through that. He denies that feelings should enter into ethical considerations – it is about logic, determining principles and through that weighing up the relative merit of positions. He would deny absolutes, but never-the-less delivers them in his judgements.

Here is someone who has developed his intellect, and an intellectual awareness of ethics, yet something is obviously missing…. a connection to and awareness of those around him and practice of his ethical principles in his relationships with others. If you were his teacher what might you consider doing? How might you challenge him to realize that ethics also includes the feelings within, and that it is worthwhile to listen to that sense of inner discomfort and act from the heart? That ethics is more than just philosophic discussions but also practice. How could you help him tune in more to the *interpersonal field* as opposed to the *intellectual field*?

And what assumptions am I bringing here in even asking these questions?

Now if Travis (from the last chapter) had been in this class, giving this presentation, then what would he do? We could assume that he would not be concerned if students in the class were affected by the presentation – *"they need to be stronger"*. Based on his past actions in class I might predict that he would have worked out an argument for why it was OK to kill the chicken which he would use to justify it and if anyone challenged him, he would then avoid further conversation, avoid being perturbed, in order to protect his ego. Yes, that is a bit harsh… I am making my own judgements here, I know. His sense and practice of ethics is less mature than the other students; he seems to be at a more ego-centric, black and white stage. How might you help Travis in developing consideration for others, being more flexible and open to feedback and seeing the shades of grey?

How could you create an ethical science classroom which started where each student was at and helped them flourish and develop their ethical selves? Does this content directed science classroom provide sufficient opportunity? What are the other possibilities?

Case 2: Kama Sutra Bears

1997. Journalism class, end of first term. This is a class run along an enterprise curriculum framework where students work in teams on publications of their choice – learning is just-in-time and often just-too-late. While this type of class was pretty standard in the innovative College I worked in from 1990-1995, the current college I am in is much more traditional and hasn't really got much experience in how to think about and deal with this sort of learning.

One group has just published their first magazine which includes a humorous article of cartoon bears in Kama Sutra positions. The article gives explicit instructions on what to do, and safety considerations like needing to stretch muscles first and ensure props are strong enough. It causes some complaints, mainly from the Christian group who say they are

Fig 10.2

offended. My students react by saying, "Well they are not representative of our readers", "We didn't force them to read it", "Students see sex stuff in the magazines they read anyway, what's the big deal?", "We have the right to put in things which we think are important."
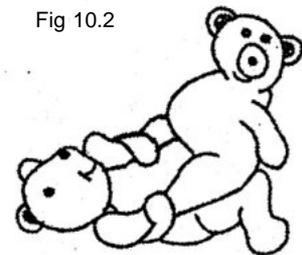
My students can not see nor appreciate the perspectives of other people, nor allow that other people might have different perspectives to them. They are not prepared to take responsibility for what they have done. Journalism to them is not about audience, it is about the opportunity for them to have a voice.

This is my second year of teaching journalism but the first time we have got any complaints and I am finding my way into thinking how to deal with it. We have an ethical code, based on the code of journalists but it doesn't really cover this situation. And now teachers in the school are debating it – Art and English teachers are defending the right for free press and conservative teachers are slamming the journalism class, saying their magazine will affect the school image. The principal is very unhappy and gives me a bit of an earful (understatement) while I am in the library with some of my students. They get to hear it and also to hear me sticking up for them and suggesting some solutions depending on different scenarios.

I suggest to him that this is a practical enterprise class, engaged in authentic learning where we create real products. Thus things the students do are going to impact on the community

around them. That if we use the feedback from the community then this provides wonderful opportunity for learning. While the mistake might have been 'just-too-late' for some of the readers, the learning is 'better late than never'! So we have to see ethical development as something that comes out of these opportunities, not something that students might have beforehand. "So what are we?" I ask him rhetorically "A place of learning? The issue is how to minimize the harm to the college image while such learning is happening."
"Well I don't want to see this happening again." And he glares at me.
I sigh. "Well it is going to – despite any controls I put on it, things will happen that we cannot predict. What it has shown me is that we need to have a whole school policy on how to deal with such issues – that the school recognises that it is OK for students to make mistakes, but they will get the feedback, and have to show that they are taking it seriously and coming up with solutions."
"Hmmm. So what do I do about the people who have complained to me?"
"Well ask them to visit our class and talk to the students or to write a letter that we can respond to – that is how complaints are dealt with in the broadcasting industry."

> "The person who really thinks learns quite as much from his failures as from his successes."
>
> "To learn from experience" is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions, doing becomes a trying; an experiment with the world to find out what it is like; the undergoing becomes instruction--discovery of the connection of things."
>
> John Dewey

The principal still wasn't happy (which was probably justified when later in the year things did blow up in our faces.) However, this was a turning point for the large group of my students who were present. Hearing me take responsibility (copping the consequences of their actions) and negotiate tactics changed their perspective. Many students who had been very aggressive towards and dismissive of the complaints now changed their tack completely – looking for ways we could be more responsible towards the readers, the school and advertisers. How would an advertiser feel being associated with sex images? They devised a warning system for the front cover of their magazines and a complaint procedure. But one boy (manager of LOKI magazine with writers outside the class), who was not party to this process, bypassed all the checks I had negotiated with him for his satirical magazine and managed to create a major controversy in the school, causing me lots of strife with management.

I believe that feedback is crucial to the process of taking ethical responsibility. However, unless your field of view changes, feedback by itself will not necessarily perturb currently

held beliefs. It is being able to understand and care for the perspectives of others, or experiencing broader perspectives which enable us to read and respond to feedback in different ways.

A key thing going for journalism was that the very nature of creating a product which interacts with others puts students into situations where they get feedback and have to make ethical decisions. In contrast, students in my physics class, except for the chicken incident and their relationships with each other, were not provided feedback from the wider community on their *doing* of science. Is it important for science students to also have such authentic experiences? Or do we see science education as something that is done within the closed doors of a classroom?

Meanwhile, I wondered what could I take from the journalism incident to structure activities which could help promote ethical awareness and responsibility which could act as a half way point between authentic experience and abstract discussions. Dewey (1966) believes that imagining the perspectives of others is important in developing the ethical self. It is through the imagination we can step inside someone else's experience and see the impact of what we do. We can play out scenarios and see the consequences.

Case 3: Perspectives and hypotheticals

1998 Journalism. We are watching a current affairs program. I have just handed out cards with the name of a character on it... different stakeholders who would be involved or interested in the news story we are watching. I have asked students to watch the program from the eyes of the character that they have been given. To imagine who the character is, their likes, dislikes, what they do and what they believe. To get inside their character.

The students now give their opinions about the program based on the perspective of their character. They are intrigued to hear how the different 'characters' respond to the program as well as to the other characters. The students are relaxed because they are not having to justify their personal positions nor defend their own personal character. They are testing out the impact that different views or positions have on others. They are learning to unpack what is behind a character's view – the hidden values - without feeling that they are being personally exposed. How well do they think they represented the character's view?

I now ask the students to respond as themselves. How are these responses different to the different views expressed by the various characters and what personal values are they bringing?

This activity proves very successful and I find I use this method frequently throughout the year in discussion of media issues. I also value-add it, designing an iterative hypothetical role play where students are given a bit of information, state opinions (from their role as well as their own) and make decisions, then are given more information which causes them to rethink their positions and make new decisions. It challenges students to think about a media issue in a very complex way and deeply challenge their underpinning values.

It enables them to change their positions, rather than defend them and become entrenched in them, which might result through a debate format. I ask them to map how their opinions changed and what were key things that caused this. Students reflect not just on the issue itself but also on their own process of defining what they value. We are developing meta-cognition skills in how we apply and develop values, and how they might be open to change.

What impact did these type of exercises have on the students? It resulted in considerable ability for self-reflection as evidenced by their end of year journal entries – an honesty about self, and self in relationship to others. An understanding of how they and their values had changed. Many commented on how their inter-personal skills developed and how much they began to appreciate and respect diversity in others – understanding others' perspectives and not judging so quickly.

How was this different to the *dialogical classroom* in my physics class where I was encouraging students to bring in more feminine aspects to their discourse? I think it was different – in physics students were engaged in a hermeneutic process of coming to shared meanings, while in journalism they were more imagining themselves as the 'other' and then involved in creating shared meaning through such experience. It was much deeper than the role plays that my physics students were doing when they took on roles of scientists to experience the development of the physics ideas. In journalism they were taking on roles to get inside the way a person saw the world, what they valued and how they might make meaning of a situation.

Did this imagining of others' perspectives develop the ethical self as Dewey would suggest? I believe so. I certainly didn't have to worry about incidents like the previous year in journalism where we disturbed the whole school with our offensive publications – students

took responsibility for what they were doing, developing a code of ethics, putting them into practice in their publications and in their dealings with each other and the wider community. And did I circumvent potential useful learning by preparing students 'just-in-time'? It actually raised the bar and enabled far more subtle learning to develop, an example of which I give below.

Did the students value the process used? It was interesting that when I set up a group project at the end of the year, where students had to facilitate a class discussion of a media issue, three out of four groups included the 'perspective' card system to promote discussion. It was clear that they valued this approach.

One student reflects on how she has changed as a result of the course:

> This is a big question, hey, "how I have changed as a person." Well here goes. This year has been a year where I've been trying to discover who I really am. And you know what? I don't think you ever quite know who you really are. I believe that through life you begin to develop your character and inner qualities but I don't reckon I'll wake up one morning and say "hey, today I know who I am." Nah, it's not going to happen.
>
> It's been really great to look around the classroom and to be surrounded by such a diverse group of people. Every person in the class likes to be treated differently, spoken to differently, finds humour in different things, wears different types of clothes, hangs out in different social clusters. Some of my greatest inter-relational skills have been developed in this class. I think I learnt how to be patient too. And to respect others for their beliefs and in turn I've seen them respect me. It's been nice for once to be able to be happy and act myself within a classroom situation. There is a real sense of freedom and liberation in that.

Case 4: Challenging homophobics

1998 journalism. Meet Tyler. He has got quite angry about a group of homophobics in the school who are making the lives of gays very difficult. He has decided to write an article about it for the student magazine. "I want to write something which will make them change their behaviour. Like, stop doing this, it isn't right!" he says to me with passion.
"Would homophobics read an article like that? Would you read something that says don't be *who you are?" I ask mildly.*
"No, you are right." He says, thoughtfully. "They wouldn't even look at something like that. What do I do?"
"Perhaps you could write something which might help them understand a bit more what it is like being gay – what the issues are, how it feels to be victimised? Seeing a gay as a real

person. That is what they are doing with rehabilitating criminals – getting them to face those they have hurt and listening to their stories."

"So I could interview some gay people and find out what it is like being gay and the issues that they have to face?" he says galvanised again.

So Tyler goes off and interviews Rodney Croom, a gay activist, and several gay students and teachers in the school, getting their histories and experiences. He then comes to me and says how these stories were quite sad in some cases and made him angry in others.

"Surely if homophobics saw these stories, they would see the other side and act differently?" he says. "But the problem Sue, is that one of the things that came out of my interviews was that these people do not want people to be sorry for them... they are not victims. If I use their stories to try to create some empathy in the readers, then I am not really being considerate of the needs of my interviewees. I am just using their stories for my own ends."

"Tyler, that is very insightful of you. It hadn't occurred to me. What could you do? How could you use what you know now about the issues with being gay to construct a story – it could be fictional - that might affect those you want to perturb while at the same time not portraying gays as victims?"

"Maybe I could write a hypothetical... perhaps I could get the reader to put themselves in a situation of a gay person. Maybe they could wake up one morning and realize that everyone around them has a different sexual orientation to them and are looking at them as if they are the deviant ones!"

And this is what he did for the student magazine. We are not sure if it was read by any homophobics, or whether it had any effect.

But what about the effect of this process on Tyler? This whole process was a very complex ethical issue requiring him to develop considerable awareness and tactfulness. He had put himself into 'moral proximity' with his interviewees. Their issue became his issue. He had to balance his needs as journalist and activist with their needs. He had projected himself a little into the 'life world' of homophobics, but could have done more perhaps in understanding where their issues might stem from and what might effect change. He was yet to move into mastery of reading culture and being able to work with it but was making attempts to do so. He certainly valued the hypothetical form as one which has the power to change perspectives.

Tyler was also juggling with ethical issues far removed from those of *right* versus *wrong*. His were issues of *right* versus *right* (see fig 10.3). **Loyalty** to the gay group while at the same time wishing to tell the **truth**. **Justice** for gays versus **compassion** of their needs. His

way of solving it was finding his way into post-modern versions of truth representation – impressionistic writing using standards of verisimilitude.

His wrestling with the issue was a revelation to me about the potential for ethical development in our teaching. He read the situation with far more depth and insight than I had. I certainly hadn't thought it through when he first wished to write an article about gays. And even saying "I hadn't thought it through" indicates my habitual response to ethics.

At the beginning of the year in journalism I did a guided visualization where students went deep into themselves, looking at what they

Four ways of classifying 'right versus right' ethical dilemmas are:

1. **Truth vs Loyalty** - this is about being honest while keeping one's promises. Truth tends to be about accurately reporting the fact. Loyalty is about feelings of allegiance to a friend, a group, or a set of ideas.
2. **Individual vs Community** - this is about placing the interests of the individual against those of the larger community.
3. **Short Term vs Long Term** - this is about requirements of the present against the need for a safe and secure future.
4. **Justice vs Mercy** - this is about the conflict between fairness and equal treatment on the one hand and compassion and understanding of special circumstances on the other.

http://www.hent.org/world/rss/files/ethics/ethics_dilemmas.htm retrieved 13/6/2006

Fig 10.3

wanted to explore about themselves. Tyler had an emotional experience which surprised him and said to me that it made him realize how much he had suppressed his emotions… how much he tended to experience things with his mind. He decided his goal for journalism was to explore his emotions… to look at bringing them into his writing and integrate them more into who he was. Well he certainly achieved an integration of mind and emotion during the course of this year. His ethics were grounded on both clarity of mind and connection with his own emotions and those of others. He was developing both an *ethic of care* (based on developing values and principles) and *natural care*.

Meta-cognitive tools for unpacking ethical thinking

The students in my classes were coming from a spectrum of ethical development and culture. For those moving into the *self-authoring* mind perspectival stage, they had the capacity to see and question the underlying rules of things. This was particularly true of most of my physics students where we were unpacking and playing with the rules of science. What are the rules of ethics? What might it mean to unpack them and to play with them? What questions might be useful for students at this stage?

- Can you see the different ethical *principles* or *rules* that have underpinned our discussion?

- How might you apply these general principles to this new case? How appropriate might that be and what are the dangers of applying such principles as hard and fast rules?

- Can we discuss this in another way or from another perspective? Instead of thinking about this using *ethical principles*, could we come at it from the *caring perspective*? What might we decide based on that?

> **Three types of Ethical Thinking:**
>
> - **Ends-based thinking** - deciding to do whatever provides the greatest good for the greatest number. This is known as the principle of **utilitarianism**. It relies on being able to predict the consequences of different actions.
> - **Rule-based thinking** - deciding what to do based on a rule that you believe should be a general principle that is always followed. Rule-based thinking acknowledges that you can never really know all the consequences of your actions and that it is better to stick to one's principles.
> - **Care-based thinking** - deciding what to do based on the idea that this is what we would want others to do to you. This is known as the principle of **reversibility** and is at the center of most religious teachings.
>
> Fig 10.4

- How much are the principles or perspectives we have come up with based on our own values, habits, customs, worldviews or culture? What might be other responses from other cultures or worldviews?

- Is this issue a *'right versus wrong'* one or *'right versus right'* and how much is our own standpoint defining that?

- How has this been useful in helping you come up with your own values, standards, principles and processes? What processes have you found useful for the continual evolving of your ethical self? (Imagination, looking at consequences, seeing through other people's eyes, looking for new perspectives, coming up with personal codes and revising them, putting into practice and looking for feedback, listening to intuition, practicing compassion…?) How have you seen yourself changing? How comfortable do you feel about the process

Would these questions have helped move Scott from his rational mind perspective of the world or entrenched him in it? Would they have helped Travis? What are the limitations of a purely rational approach to the development of ethics?

What would I say to Scott now about the chicken killing incident? Perhaps it might be this...

> *"On one hand I find your arguments quite convincing. But on the other I am still feeling very uncomfortable about the whole chicken killing incident. So I feel a tension between my gut response and an intellectual response. Is that immature of me... should I be dealing with such an issue in an intellectual way.... Or is it also legitimate to listen to other ways of knowing? I am concerned that by intellectualising it I might be ignoring some important aspects. I think I need to explore these inner signals more and understand where they are coming from. Perhaps we need to put ourselves into 'moral proximity' of issues so we can experience this inner voice for ourselves....when we look at things from a distance, or abstractly it is very easy to apply rational principles and arguments. Perhaps it is too easy to eat chicken when you are not doing the killing."*

Perhaps my role as teacher should be to live the ethical tensions myself – rather than resolving them – make these lived tensions transparent to my students, investing the tensions with my angst and authenticity… helping my students to realize that such dilemmas are not easy and that it is alright to live with these tensions. Perhaps then this encourages students to develop a dialogical voice, rather than a monological one.

Bringing in the development stages

What might be appropriate approaches for students at earlier stages of moral and perspectival development?

2004. Meet my maths class. Most of these students are considered 'students at risk' because of behavioural issues. They are coming from very different home cultures to my physics students and have developed behaviours that help them to survive in that world.

In this maths class I had one boy arrested by the police for stealing a car, another interviewed by police for stealing a balance (to weigh drugs), one boy suspended 13 times from his previous school for behaviour issues, a number of students with lesser offences and a number of students who would come to class stoned and late.

I soon realized that the barriers to my students in finding employment were not just their poor level of numeracy and literacy but in fact their ethical behaviours; their complete disregard for rules or for those not in their immediate friendship group and their offensive

opinions like "All Chinese should be sterilised."
Having just read Kegan (1982) I thought that
many were at Kohlberg's **Individualism and**
Exchange stage where their actions are not done
because they are the 'right' thing to do, but rather
because of the benefits they accrue to self. How
could I perturb them to the next level?

How do I build up ethical awareness in such a
group? I really don't know, I am not an ethical
expert. But I don't want to be someone who just
manages behaviours, I would like to be able to
help *liberate* my students from the prison of their
behaviours.

Case 5: "It's my money and I won't pay tax!"

Perhaps this is an opportunity…. We are looking
at filling in tax forms and my students say to me
that they shouldn't have to pay tax… "It only goes
to the pollies anyway." "I earned it, I deserve to
have it."

I wonder how I can challenge their views. How
can I make it personal so that they own it? I go
home and mull over options. I imagine the
responses of my students and how I might respond
to these. I play out scenarios in my head and ask myself what assumptions and values I am
bringing. How can I turn off my value judgements so I don't put my students off? How can I
enter into their world? What is it? I begin to evolve an approach that I think might
challenge their views.

*I go into the next lesson and give each student a card with **yes** or **no** on it and say that when*
I ask a question I don't want them to talk (because they usually talk on top of each other and
don't listen) but to hold up the card.

"Do you think you should have to pay taxes?" I ask.

Kohlberg Stages of Moral Development

o **Stage 1 – Obedience and punishment** – do it because it is the rule and will get punished otherwise

o **Stage 2 - Individualism and exchange –** Do it because it gives me an advantage – I'll scratch your back, if you scratch mine

o **Stage 3 – Good interpersonal relationships** – Do it because it is the good thing to do - love, empathy, trust, concern

o **Stage 4 – Maintaining the social order** – do it because the laws are there to ensure society functions.

o **Stage 5 - Social contract and Individual rights –** questions underpinning values and laws of society and may work democratically to change to more just laws

o **Stage 6 – Universal** (Kohlberg subsequently dropped off this stage as he saw little evidence of it)

Gilligan's Stages of Caring

1. *caring for self*
2. *caring for others* – often sacrificial
3. *including themselves into their caring*.
4. *universal and abstract care*.

Fig 10.5

One person says 'Yes' (Because otherwise you go to jail – follow the rule or get punished)
and the rest 'no'. I ask each one to justify their answer which I write on the board. I then
say "How about this... what would you do? Yes or no?"

> *Your best friend knows you are going into town and asks you if you would*
> *mind buying the latest CD for her. She gives you $30 which is the price. But*
> *when you buy it, it is on sale for $25. Do you tell her that and give her back*
> *the change?*

All but three students vote to hand the money back. I now ask them to give reasons for their
decision and write them all up on the board.. One boy explains that he would keep the money
– because he had made the effort to walk into town and deserved it (care only for self).
Another says "What my friend doesn't know won't hurt him."(If I can get away with it I can
do it.)
One girl says "What happens if he found out? You would lose his trust and he would dump
you as a friend." And most in the class agree. (A contract approach to making decisions – I
get what I want, if I give you what you want, but shows greater imagination about
consequences of actions.)
Another person says "Not giving it back would be cheating." (Which is applying a rule of
right and wrong.)
Another said "It's your friend! You don't do that to your friends!" (A sense of care for
others even if it is only their immediate group.)

I then asked the group to vote again and all but one boy now vote to hand the money back.

I then look at where the money from taxes goes – 50% into social security and we quickly
work out that $30,000 of that is paid to my students in youth allowances each year. They are
very surprised.
"Yes" I now say hamming it up, "look how much in taxes I am paying each year and it is all
*going to **you**! Why should I do that? What are you doing with it? It is to help you come to*
*school and learn, but are you? **You** are wasting **my** money. Why can't I keep it and use it for*
a holiday?"
Their eyes are wide open, they are sitting straight up and I have their attention. This is an
immediate threat to their well being.
"You can't do that," says one, "it wouldn't be fair to us."
"We need the money," says one girl "I wouldn't survive."

*"But do you deserve it?" I ask. "Why is it fair that you **get** money but I have to **give** it? I have worked hard for my money."*

They look at me glum as if I am about to take their money away.

"So when you are earning, will you pay your tax so other people like you can be helped?" I ask. (The golden rule of ethics: Do unto others as you would have them do unto you)

"I hadn't thought about it like that…" says one.

*"Most of you said you wouldn't cheat your friend. When you don't pay taxes is that cheating?" I ask. "**Who** are you really cheating?"*

Someone says "So not paying taxes is cheating people like us."

Another says "I never thought of not paying taxes as cheating."

"Do you have one rule for your friends and another rule for strangers?" I ask. "Do you want to take a vote? How many would be prepared to pay taxes when they start earning?"

All but one votes for paying taxes, which is a complete turn around from when I asked that question at the beginning of the class.

What am I doing? Am I using diabolical manipulation? Am I mirroring back to them their own reasoning so they can see the limitations of it? Why can't I model for them appropriate behaviour and values? (And what are these anyway?) Am I helping them out of the "I'll scratch your back if you scratch mine" stage into the next, or just reaffirming to them that that is how it works? Am I developing a sense of *"We do things because it is right, or because we care, or because rules are there to help make society work"?* For those that already cared for themselves or their immediate friends was I increasing their locus of care to include strangers?

Was their change in ethical stance for this particular context transferable to other contexts? Had they learnt any new processes or principles which they could apply? Had this changed their inner self and their own values?

At the time I was feeling good, because it was a good lesson – they were all engaged, most ended up believing that it was important to pay their taxes. I had skilfully used a range of pedagogies and theories to orchestrate this outcome. And yet….

Had I really looked deep enough into what lay behind their attitudes? Yes, let me look deeper. What do I believe I see? Perhaps at a fundamental level there was a lack of trust… because everyone or everything ultimately in their lives seemed to have let them down. Is this where their 'us' versus 'them' mentality comes from? So perhaps building ethical

capacity needs to come from somewhere deeper… building trust and belief in other people, developing a sense of care … and how to be discerning with their trust so that they could be in control of that process.

It seemed that many of my students had unrealistic expectations of others, which set up reaffirming experiences of failure and betrayal. By my encouraging the students to take on enterprise projects they were continually having to ask other people around the school for help. Rather than rushing in unprepared, I encouraged them to project themselves into that other person's world and to see what they were governed by. The students then had to imagine how that person might respond to their requests, work out the objections and then come up with solutions. So rather than blaming others for not meeting their needs, they could take control. And with a number of successes came a lot more confidence and also a trust in their own abilities and a process. For some this was a real turn around… they seemed less defensive, expecting the worse to happen. Rather, they began to be more open to other people, understanding that that not everyone is out to get them, but just limited in what they can do by their circumstances. And this change in behaviour, motivation and attitude was remarked upon by their teachers.

One boy said at the end of the year "I have really changed. I learnt it was important to be fair to everyone. I learnt that you have to stick with a problem and sort it out – you have to take responsibility. Yeah. And you feel better if you do the right thing." Another boy gave a teacher he had harassed in first term a box of chocolates.

However, there were some who were struggling to take on this new role in the turmoil of their home lives, often falling back to old habits. It took continual support and reinforcement. Perhaps they had glimpsed who they could become. Would it be enough? What might an education system look like that incorporates home and community in integrated learning?

Now am I just bringing and imposing my own middle class values to my teaching of these students who are coming from a very different home culture to mine? Will these new values help them survive in *their* world? Will they help them to survive and grow in ours; helping them to move out of the 'generational' or 'situational poverty' circumstances that most find themselves in?

Personally I found that seeing ethics as more than a set of principles and processes – to seeing it as a spectrum of development and coming from deeper issues of self - gave me considerable power in thinking about why students were saying what they were saying. I

realized that I needed to start where they were at and that it was unfair for me to expect particular ethical behaviours when they had yet to move to the corresponding development stage. Consequently, I could be quite strategic in thinking about what sort of dilemmas and experiences could perturb their status quo. How can I use the spectrum of ethical development within a class to provide mirrors and perturbation for each other?

So for students who might be on the lower end of the ethical and perspectival spectrum I found that it was important to negotiate agreed rules, name their behaviours, encourage projection into other people's viewpoints, help students understand the rules behind inter-relational behaviours and give them opportunities to meet ethical dilemmas which affected them personally. It was important to ensure students got feedback from their actions and had help in unpacking that feedback so they could to use it to develop new actions. In the case of students who were pathologically blocked in their development it was important to address their fundamental issues.

For students at the *self authoring* perspectival level, I found that to continue to challenge their ethical thinking I needed to move beyond *right* versus *wrong* dilemmas to more sophisticated ones of *right* versus *right*, encourage them to unpack the principles and processes behind ethical judgements, and to question the notion that ethics is about principles in the first place. I needed to model for them someone who was aspiring to be ethically mindful, walking delicately through minefields and being transparent about their process … ethics isn't a stance - it is a work in progress.

The enterprise framework gave me time and opportunity to do this. In these classes I felt that the student was at the centre of learning. It was about *their* development and empowering them to be in the world. And issues of ethics naturally emerged in this environment.

What was at the centre of my physics class? While I was concerned with the development of my students, it was development which served the understanding of physics, helping students become empowered as scientists and thinkers. The demands of covering content meant I didn't have the luxury to stop and run a lesson on ethics. But should this have been part of my agenda? Should ethical behaviour be an explicit science criterion?

So rather than marking an essay on how well a student has debated the pros and cons of an ethical issue, should we be requiring *demonstration* of an ethical self – through interactions with others, integrity in the doing of science, in coming up with own codes of practice, applying them and reflecting on them? A classroom which is a community of scientists could

be much more than students in dialogue about science – they could be communities of ethical practice where care flourishes and where we value that explicitly.

Can you care too much?

When dealing with student ethical thinking I guess the stuff that stands out and demands attention is when students demonstrate lack of care for others. But for many girls in my classes their issue was caring too much – they were in Gilligan's stage of *caring for others* where there is a danger of sacrificing self. They were affected by proximity, urgency and emotional need. So if a friend had had a row with a boyfriend and needed emotional support then that would be their highest priority – forget coming to class, or commitments they might have made to their class group.

Now some used this as an excuse to be absent, or thrived on the drama of it, or loved to be needed. Some may have developed unhealthy co-dependency. Others were genuinely concerned, emotionally affected and were incapable of working because of that concern. And sometimes they were dealing with very complex and serious problems – for example, friends who were depressed or suicidal.

We value caring people in our society so should one say to a young teenage girl, "Look, this work in your class is more important than helping your friend?" How in fact can we help them develop discernment in determining priority of self needs and others' needs? Of applying perhaps some principles or judgements in determining how and when they might care? Of recognising their own emotional need to help and being able to manage that? Of being able to distinguish between urgency and importance? Of understanding the difference between sacrificing self, becoming a martyr, being exploited, co-dependency and a need to serve? How to recognize when they might be moving into one of these and to know how to act accordingly? How to find compromises which meet their own needs, needs of the person who is demanding their attention and other people who are relying on them? How to ask for help so that they are not the prime carer?

Yes, how well am I doing this? Does this discernment come with better critical thinking skills and development of ethical principles? Or is this need to care compartmentalised away from rational thinking, coming straight from the heart? What would you do?

What I have learnt about the process?

That using real situations that the students are facing or have brought up themselves is often more effective than abstract dilemmas. To be open to these sort of opportunities, but not to necessarily feel I have to immediately respond to them as it is difficult doing something well off the cuff. That it is better to take time to reflect on the issues, to question my own values and assumptions and to ask what moral judgements I am bringing to a situation before I leap in and to realize that whatever I do, I am taking a stance. To carefully design an activity which links to the ethical and cognitive stage of the students using connective pedagogies. To allow time for iterativity and student reflection and growth. To celebrate the outcomes. To build up authentic relationships with the students so we trust each another enough to go deep into our own feelings and values. To encourage students to increase their locus of awareness, develop their imaginations and practice taking on the perspectives of others. To set up situations where students need to work closely with each other encouraging moral proximity, fostering opportunity to care for each other.

How am I bringing spirituality into this?

Part of bringing in spirituality to my concept of ethics is developing my own sense of care I have for my students, which in the case of my maths class takes a bit of practice. I have found helpful various courses and books on relationships and control dramas and most importantly various meditation techniques. One is a form of the Buddhist *Loving Kindness* meditation… where you bring students into your awareness and see them with love and compassion. When I do this I spiral upwards in view, seeing their behaviours as distinct from them, seeing their issues, then seeing their deep needs, seeing their energy and blockages, and then seeing them as beings of light. I begin to develop a sense of compassion and non-judgment where I can be with them in class without all this thinking and categorisation getting in the way.

So on one hand while my rational responses to them are based on my judging their development and their capacities, on the other hand this frees me to not expect beyond that of which they are capable and enables a form of rational non-judgment. (A very fine balance and not always achievable … yes, another ethical tension for me to walk!) This is different to the moments of pure connection where both student and myself feel we are seeing each other. In such a moment no judgement is present because the relationship is operating in a different place. And at moments like this students see themselves in a new way – not through

my judgement, nor expectations, but they see for themselves that inner light of self…. Or so I seem to sense.

Yet my own values and expectations of myself are always present and some students will be judging themselves against that. So it is important that I also have a 'highest thought' for my own ethical behaviour. And despite my best intentions, judgments and values will always come in the way in relationships.

My meditation practice is also important in building my capacity for mindfulness so when I am presented with 'challenging moments' with students I can slow down time – I can recognize my first response (which might be defensive), let that go and allow a more wise response to form. While this is successful for most of my classes, for my maths class the pressures of their behaviours often trigger my first response which is never helpful.

If this inner practice is so useful for me in my own practice as an ethical being, then why am I not encouraging my students to take up such practice? I have put ethics on the agenda of my maths class but I am only really assisting them developing their ethical being through certain intelligences. In my physics class I was concerned about balancing students' predilection for ethics of the mind, with an ethics of the heart. But what about soul? Soul is the *capacity to be*. Wise action might be *mind + heart*. But when soul is in the picture there is another element which goes beyond such judgements of 'wise' or not.

Terry Pratchett (2005) suggests that there are 3 levels of thought:

> **1st thought** – which is gut response, intuition – it could be trustworthy, or clouded by defence mechanisms
> **2nd thought** – what other people might say, justifications, layers of critical thinking and unpacking, second guessing, mental gymnastics
> **3rd thought** – when the universe thinks through you.

Yes, '3rd thought' is very Tao-like. The principle of wu-wei. When we are aligned and connected with the universe then we are acting in harmony. (1st thought = 3rd thought). We do what is 'right' for the now and we don't second guess. Now people can experience this state momentarily (as a peak experience) or be in a state of being where this is normal – and we would probably call these people sages or masters.

So ethical development for students might be more than helping students develop values, ethical thinking and discerning care – it might also include developing the capacity for 3rd

thought moments, and being able to recognize the difference between 1st thought and 3rd thought. It is infusing experience with spirit and fostering deep connection.

To help me unpack some of the issues of developing student ethical capacity I have been using Western development models and ethical thinking paradigms. Now let's revisit Greg Cajete (1994) where he offers an indigenous ethical development model which is based on a holarchy, rather than going through hierarchical stages – as one matures, one gains higher stages which include earlier ones, and one moves back and forth.

5 ways of thinking – steps towards thinking the 'highest thought'

1. **First type of thinking** – Orientation to one's place – starting at one's home, then moving in ever widening circles to the village, surroundings – an ecological awareness. This is the ground on which the other types of thinking develop.

2. **Second type of thinking** – Consciously understanding the nature of one's relationships to people, plants, animals, natural elements and phenomena. Self knowing based on senses and emotions and developing the ability to hear the spirit moving in the world around.

3. **Third type of thinking** – Reflective, contemplation, speaking and acting. To think things through, make wise choices, to speak responsibly for purpose and effect, and to act decisively and to produce something which is useful and has spirit.

4. **Fourth type of thinking** – Wisdom – complex state of knowing founded on accumulated experience – usually seen in elders.

5. **Fifth type of thinking** – Beyond wisdom to knowing the spirit directly with all one's senses – multi-sensory consciousness associated with mystic and spiritual leaders – visionary experiences that anyone can experience. This is the place where spiritual ecology develops, the centre place of thought, the place of deepest respect and sacredness, the place of the highest thought.

Yes, in my consideration of ethics where is the sense of the sacred? Where is the deep foundational sense of place and understanding of ecology? Where is the deep understanding into the nature of things? What is missing in our Western education system?

My ethical issues seem so disconnected from the natural world – freedom of the press, role of media, animal testing in science, paying taxes. Has the very structure of Western society - classes, schools, isolated family units, day-care, urbanisation - disconnected students from the foundations of being on which ethics naturally develops? Or do we need a spiritual ecology model for the urban world?

There is something so holistic about what Greg Cajete writes – so complete and whole – so spiritual. It seems my own efforts to incorporate Holistic principles in the teaching of ethics are piecemeal – not infused with a grand vision. But this is not a vision I can have alone. I am talking here about a vision that might infuse a whole culture of education.

And what is the role of science, which has the capacity to help students connect with nature, with self and with each other, which can help them to think reflectively and act with wise purpose? Could this have a part in such a vision?

Perhaps for very young children at the *pre-conventional stage*, science has a role in helping to encourage a sense of place in nature, and being able to act respectfully within that place – observe, cultivate, mark the rhythms of nature, harvest, protect. Science here is not about *experimenting* but about *caretaking*. Once begun as a young child this can become a thread throughout one's life. Nel Smit (n.d) has introduced the concept of 'My Patch' in Tasmanian schools which enables students to care-take a small patch of land, preferably natural bush…. It becomes a place of reflection and connecting with nature as well as observing the minute changes that might occur around a tree or a rock.

This sense of place is one of many that students would develop – home, family, social contacts, traditions.

When students start to learn scientific facts and begin scientific inquiry processes at primary school it would be important that this is balanced with a deep connection and sense of awe and wonder in not just their immediate patch of nature but also the universe which is opening up to them. As students feel connection they come to care. So enchanting students with the universe is not just about engaging them or enhancing understanding of concepts it is about activating their souls, becoming a crucial foundation of ethical development.

A key aspect of their learning about the world would be about the relationships of everything to each other and they would be able to place themselves within this web of relationships. They would be able to project themselves into the perspectives of plants, animals,

phenomena and people as well as tuning into them in a more contemplative space. Their scientific objective inquiry would then be done on a foundation of deep respect for the world. Thus the whole world would be in *moral proximity*, in their locus of awareness as they make decisions about how to undergo inquiry.

They would also see themselves in a community of scientists which brings with it responsibility to each other and to those for whom they might be doing science.

As they get older then connection, care, and responsibility become the foundation for rich, creative thinking about the nature of things. Scientific objective thinking is valuable in developing aspects of the mind and when married with other inquiry processes enables a new clarity of thinking. And so the process of development continues as heart, mind and soul are integrated in wise action in the world.

Can the world survive a humanity which does not aspire to the *highest thought*?

Gaia

I am water, I am earth, I am life.

My body is your body.

See though my eyes
And see yourself…
Gaia, wondrous being.

My heart sings when I breathe
Because I breathe your breath;
Your air, your oceans, your forests.

I am you and you are me.
One, together.

Interlude 1: An extract from a student's physics journal

I don't know how much I learnt about electro-magnetism during the debate (*Are your mobile phones killing you?).* What I <u>am</u> learning is how corrupt society is. For example, one article left out information that didn't support their hypothesis. I mean, how corrupt is that? Conspiracies are probably more present than we think, and that too is very scary. I don't think it will turn me away from science though.

Society is also back-stabbing. That's <u>another</u> thing I learnt. People saying "you're not right", "that's wrong" and other things, just because they don't agree with it, or they know it is right but they don't want to accept that this other person is right. It made me realize how wrong things are, even at my work where there are so many different conflicts it isn't funny, and I can't wait until I get out and join the reserve. I'm not saying that this is a bad thing learning this stuff, it's actually very good so I can get out before I start acting like these people.

Tiffany

Interlude 2 – Hypothetical Ethical Dilemma for a researcher

What does it mean to have a code of ethics as a scientist and where do you learn that code of ethics?

You are a researcher within an organization. You have just been called into the office of your boss. He says that the director of the division has a special task for you. He would like you to write a report on a particular subject of research. Your boss hands you a piece of paper. "The director has come up with these conclusions," he says, "and would like you to write a research document which supports those conclusions."

What are you thinking or feeling as he asks you this? What do you say to him?

Let us listen in to a conversation – it is between the boss and his subordinate. It goes something like this…

The subordinate says, "You are joking aren't you? You can't come up with the conclusions before you have done the study!"

"Well the director knows this topic very well and knows that these conclusions are correct… you are just filling in the background."

"I can't do that." The subordinate says, shaking her head. "It is wrong. It is unethical. It is unscientific."

"Well I don't care about that. You have to do it."

"Would *you* do it?" the subordinate asks flabbergasted. "How could anyone trust what you researched again? You would lose all credibility. Surely you can't expect me to put my whole reputation on the line."

"OK, how about doing it, but don't put your name to it."

"This is diabolical…. Now you would put the department's credibility on the line!"

"Look, no one will find out. Anyway, it isn't that much… we already know that these conclusions are sound… it is not like they are lies."

"But even so, the process of research could come up with other factors or possibilities. You are asking me to deliberately ignore anything that doesn't fit into this picture. What happens if it is important and people make decisions where they don't see the whole picture? What happens down the track? You just have to look at the other disasters that the department is dealing with."

"I don't care about that… I am following the orders of the director and you need to as well or you can say goodbye to this job."

"Are you coercing me? This is unbelievable. Why don't you stand up to him and let him know it is unethical research and could lead to poor decision making."

"I am not going to do that. It really isn't a big issue."

"Ugh! Well all I can say is that you have the moral backbone of a worm if you can't see that this is wrong!"

What would you say to the boss? What would you say to the subordinate? What concerns do you have about this issue? How might you have handled it if you were either the boss or the subordinate?

Now this isn't complex ethics. It is right versus wrong isn't it? At least the subordinate felt that it was right versus wrong, but the boss did not appear to have a conflict. What moral culture was he coming from? Did he have a moral blind spot or was he more realistic/pragmatic? Was he acting to save his job – what effected him personally was more important to what might eventually affect other people down the track? Did he not have a code of ethics about doing research? Did he have a lack of imagination in thinking through the consequences of what he was asking? It wasn't as if he was asking his subordinate to do something he wouldn't do himself, was it? Or was he just more enculturated into the nebulous grey areas of organizational ethics.

And what about the subordinate? Did she have an explicated or unexplicated code of ethics as a researcher? Within her defence is the notion of scientific integrity - representing the facts, searching for the whole picture, not having an agenda up front, being open to where the research takes one, prepared to follow up those things that might not fit governing theories. Yet even this code is a naïve belief that the truth can be found. Despite post-modern critiques of science, is it important to still have a code of ethics as a scientist?

Would you have done this report if:
   a. You were told you would be sacked if you didn't?
   b. You were given a million dollars?
   c. It would help move forward a project that could have benefits to others?
   d. You were told that by doing it you would save millions of starving people in Africa?

Now let's say that person (the subordinate) was me, many years ago - how might I have handled that situation differently, from my 2006 standpoint? Perhaps I would have seen this as an opportunity to reflect on my own values and assumptions – to question them and look

at them in a bigger context. I may not have thrown them out but I would be more aware of what assumptions and worldviews underpinned my feelings and understandings. In the process of review I would likely have developed my ethical self further. However, I still cannot imagine a situation where I would have agreed to write such a report.

I would also have sought to understand better the moral culture of the different players in this saga and the ways in which they were embedded in the culture of the organisation. I would have made an effort to make explicit to them the ethical games that were being played. I might have encouraged the players involved to be more reflective and imaginative about the impact of what they were asking. I would have encouraged them to explore other options. I would have aimed to challenge the underlying culture in a way that was more subtle. I would have been less black and white and more a player myself. Perhaps. And it may not have made any difference.

Perhaps there is something very useful about experiencing outrage and giving people direct feedback of this outrage. Standing back and facilitating others in unpacking the situation is an act of distance. How can we do both?

How can we help our students develop a code of ethics as a scientist or researcher and realize its evolving nature? How can we prepare them for the ethical situations that they might be faced with when working as researchers? How can we help them see these as opportunities for continuing development of the ethical self, rather than cataclysms or non-events? How can we help them be culturally astute?

And why is this important? Because of the status of science and the status given to what scientists say. Because there are scientists in the world who develop blind spots (are selective in what they see and report on) and whose word is still trusted. Because there are players in the world who are operating at different parts of the ethical spectrum and it helps to identify and understand their machinations if you are required to operate in their world.

Interlude 3: Ethical code of conduct for Physicists

Guidelines for Professional Conduct
American Physical Society

(Adopted by Council - 3 November 1991)

The Constitution of the American Physical Society states that the objective of the Society shall be the advancement and diffusion of the knowledge of physics. It is the purpose of this statement to advance that objective by presenting ethical guidelines for Society members.

Each physicist is a citizen of the community of science. Each shares responsibility for the welfare of this community. Science is best advanced when there is mutual trust, based upon honest behavior, throughout the community. Acts of deception, or any other acts that deliberately compromise the advancement of science, are therefore unacceptable. Honesty must be regarded as the cornerstone of ethics in science.

The following are the minimal standards of ethical behavior relating to several critical aspects of the physics profession.

Research Results

The results of research should be recorded and maintained in a form that allows analysis and review. Research data should be immediately available to scientific collaborators. Following publication, the data should be retained for a reasonable period in order to be available promptly and completely to responsible scientists. Exceptions may be appropriate in certain circumstances in order to preserve privacy to assure patent protection or for similar reasons.

Fabrication of data or selective reporting of data with the intent to mislead or deceive is an egregious departure from the expected norms of scientific conduct, as is the theft of data or research results from others.

Publication and Authorship Practices

Authorship should be limited to those who have made a significant contribution to the concept, design, execution and interpretation of the research study. All those who have made significant contributions should be offered the opportunity to be listed as authors. Other individuals who have contributed to the study should be acknowledged, but not identified as authors. The sources of financial support for the project should be disclosed.

Plagiarism constitutes unethical scientific behavior and is never acceptable. Proper acknowledgement of the work of others used in a research project must always be given. Further, it is the obligation of each author to provide prompt retractions of corrections of errors in published works.

Peer Review

Peer review provides advice concerning research proposals, the publication of research results and career advancement of colleagues. It is an essential component of the scientific process.

Peer review can serve its intended function only if the members of the scientific community

are prepared to provide thorough, fair and objective evaluations based on requisite expertise. Although peer review can be difficult and time-consuming, scientists have an obligation to participate in the process.

Privileged information or ideas that are obtained through peer review must be kept confidential and not used for competitive gain.

Reviewers should disclose conflicts of interest resulting from direct competitive, collaborative, or other relationships with any of the authors, and avoid cases in which such conflicts preclude an objective evaluation.

Conflict of Interest

There are many professional activities of physicists that have the potential for a conflict of interest. Any professional relationship or action that may result in a conflict of interest must be fully disclosed. When objectivity and effectiveness cannot be maintained, the activity should be avoided or discontinued.

It should be recognized that honest error is an integral part of the scientific enterprise. It is not unethical to be wrong, provided that errors are promptly acknowledged and corrected when they are detected. Professional integrity in the formulation, conduct, and reporting of physics activities reflects not only on the reputations of individual physicists and their organizations, but also on the image and credibility of the physics profession as perceived by scientific colleagues, government and the public. It is important that the tradition of ethical behavior be carefully maintained and transmitted with enthusiasm to future generations.

Physicists have an individual and a collective responsibility to ensure that there is no compromise with these guidelines.

http://www.iit.edu/departments/csep/codes/coe/aphysic-b.html Retrieved 19/5/2006

Fig 10.6

What code of ethics for scientists might take in the concerns of postmodernists of the problem of representing 'truth', or might include critical theory perspectives?

What code of ethics might include a deep respect for the natural world?