

# Chapter 11

## The enabling classroom – 1997 - 1999

### Questions:

*What are the power relationships between student and teacher?*

*How might these be interpreted from a Holistic paradigm?*

*What does it mean to empower students?*

*What are the curriculum metaphors which shape the culture and constraints of education?*

*What might be a holistic or integral curriculum metaphor?*

### 1997 - An encounter outside the library

#### *Sue's Story*

*I was heading towards the library when I bumped into Lauren on her way out. She said hello to me. Another teacher was also going in at the same time and he looked at me and said is "Lauren also your student? I didn't realize she was doing physics." "Yes," I say looking at Lauren, "she is wanting to get into medicine so has a bit of work to do to get high enough marks before the end of the year." I grimace as I say it as I don't know what has come over me. This teacher, one of the leading male authorities in the school always makes me feel uncomfortable and I lose my sense of tact.*

*I am totally surprised when after he leaves Lauren bursts into tears.*

#### **Lauren's story**

When Sue said to me that I needed to work hard to get into medicine, everything just came up to the surface. My exam results had been really worrying me. I had been away after the exams on an expedition trip and when I got back Sue threw my exam paper on the desk, saying she was really disappointed in me. I only got B's. I just couldn't bear Sue's disappointment. I couldn't believe that she would treat me like that.

I guess I have made Sue a bit of a role model... I really admire what she is doing, trying to improve education... she has done so many different things with her life... a real inspiration. I felt really close to her, she is usually so friendly. When I asked her to send me a postcard when she went to America she did. I felt really special.

### ***Sue's story***

*When Lauren explained to me why she was crying I felt totally astonished. My hand flew to my mouth, my eyes opened and my heart stopped. The poor girl. This was totally out of left field. I must have seemed like such a bitch. It seemed she had totally misconstrued my actions. I remember giving her back her exam paper in the middle of a busy class, dropping it in front of her as I usually do when I hand back assignments. I remember saying to her wryly that she was likely to be disappointed in the results as she was hoping to get all A's to get into medicine, but not to worry because she still had time if she could work really hard. And then I walked away to the next student.*

*I now explained this to Lauren saying I was really sorry about the misunderstanding and the fact that she had spent so long stewing over it. I gave her a big hug and said "No, no... I am not disappointed in you at all... you are such a wonderful person... I was just really concerned that you might not be able to meet your dream. I really should have spent more time with you to discuss it rather than just giving your exam back to you and running."*

### **Lauren's story**

I gave Sue a really big hug. I was so relieved. I think I was relieved more about the fact that she hadn't disappointed me. That she was a really nice person and that it was a misunderstanding. It is funny about how much I cared about that. If one of my other teachers had done the same to me I would have just expected it, but not Sue. I guess I had developed very high expectations of her... I saw her as a friend. And friends don't do that to each other.

**Why have I put this story in at this point? What did it mean to me at the time? What did it cause me to think and to do? Yes, let me get into my 1997 head...**

I have been heading along very nicely, thankyou, on my exploration of pedagogy, learning and science. So far, when stuff happens it makes me think about how students learn, what they are thinking, how they come to know and how I am knowing. I have all my models and concept maps in my journals to prove how well I am progressing in explicating the learning process.

Yes, I am in my head. And living in my head like this I am interpreting everything from an epistemological consideration. Yet, I believe that I am coming to know my students. I am a mind reader, they say. I know what they are thinking... well what they are thinking about physics anyway. Some tell me I am the only teacher who really knows them, asking me for advice, writing their references. They appreciate the efforts I am making in coming to understand them.

But do I really understand them? Do I really know them? Do I really see Lauren, deep into the heart of her? Did I just say *deep into the heart of her*?

Heart.

What does it mean to see with one's heart?

Yes, yes, I really do care for my students. I am concerned for their wellbeing, helping them discover their sense of purpose and reach their potential, helping them in self understanding. I pay close attention to how my students' feel as a result of this new pedagogy I am challenging them with. I know for some I am taking them out of their comfort zones. I am aware that when faced with a complex task they might feel confused and overwhelmed and I encourage them to name these feelings. When they share these with each other it seems tasks are now more manageable because everyone is in the same boat.

I encourage them to be open and honest about my teaching and the effectiveness of the learning activities. They all know that I am doing a PhD, looking at improving my teaching, and they are eager to help in giving me feedback because, like me, they believe that the system needs to be improved. I have been training myself to accept their feedback; the good,

the bad and the ugly. The first time someone gave me a real critique of a lesson I felt my stomach clench and I had to remember to breathe. I had to force myself to listen passively; not to justify or to defend. I have got good at it I think. I now seem to move outside of myself... see it more as a witness, depersonalised it. It is like me and the student are watching a movie as critics and having a conversation about it. When I am in this mode it is easy to tease things out with the student... *What were you thinking or feeling during this bit?*, *What would you have done here?* *Why did I do it this way, good question!*... and so on.

I have created a certain sense of equality in my class as a result of this – we each can comment on and critique the learning that is happening in this class. There is the sense that I am a student as much as they are, but perhaps my subject matter is a little different... the subject of learning as well as physics. They comment that in my classes they are treated like adults rather than children – I see them as real people.

And even this process of student feedback has helped me to be in my students' shoes for a while, helping me to understand how they might be feeling when a teacher criticises them - all in the name of improving performance. How can I do this without being inappropriately judgmental, patronising, personal? How can I be insightful, helpful, inspiring, honouring their own aims and expression of self? What is the difference between feedback which diminishes and that which empowers?

Yes, I have done very well in separating my pedagogy from me. I am not my pedagogy. I am still a good teacher despite stuffing up a lesson. But this episode with Lauren is not critiquing my pedagogy... it is about me, Sue, the human being. When I asked for feedback, I was really putting up boundaries as to what that feedback could be about. But why didn't Lauren give me feedback earlier about how I acted? I felt my students could be really open and honest with me, yet obviously the expectations and complexity of relationships restrain what we feel comfortable being explicit and open about. The very classroom power structures – of teacher and student, the implicit contracts, the course structure, syllabus and assessment - create constraints in those relationships. I am still the teacher and there are certain lines in the sand as a result of this.

Have I been guilty of false pride? Pride in my relationships with students, pride in the openness that we have, pride in my knowledge of them?

Sue, where is your heart?

Yet, I truly believe that relationships are our biggest teacher. They have been for me ... causing me to grow as a person and grow in compassion and understanding. I see spiritual practice as something that aims at inner illumination and connection *and* also acts in building capacity for mindfulness and compassion in relationships. Relationships are the proving ground and in many ways I see relationships as the main game of life. Why have I got caught up so much in this knowledge game?

What really is insight? It is more than thinking very hard about something, more than a paradigm shift (another way of thinking), more than clarity, more than seeing underlying cultural patterns that might shape us. Perhaps it is a shedding of those things that constrain us from pure being. Is it a shedding of *too much thinking*? Too much analysing, psycho-analysing, development level matching, multi-purpose planning, cultural analysis?

When I let this go, who am I now? What does it mean to *be* in relationship, to *be in my heart*?

But critical thinking and reflection seem so important in letting go. A stage. One needs to explicate and then one can shed. Perhaps then there is integration. What am I shedding here? My pride? What am I gaining? Humility?

What is my state of being? More open to seeing? More open to just *being with*? What does it mean to be with you now Lauren? No analysing, fixing or trying to come to know how you tick. What is this place of pure being? Has my 'care' transformed to love?

How can I integrate these parts of me.... Head, heart, soul?

How can I integrate in my teaching the need for *thinking, intention, modelling* and *analysis* with the need for *pure moments of being*?

How can I do this within the context of *my role as teacher* (with accompanying constraints and obligations) along with *my need to express myself as one human being to another*?

And where is the line now, over which a teacher should not step, in building relationships with students? Am I falling into the trap of caring too much – of putting myself too much in moral proximity with my students? If Holistic Education is about a *pedagogy of love* (Nava

"We need to forget our pedagogy as we open the door to our classes and just be in the presence of our students."

Parker Palmer

2001) then I need to learn how to love ethically and healthily, developing in myself a capacity for clear mind and warm heart.

And in this effort to build caring relationships with students I have moved the bar in terms of my own ethical behaviour. Because now, it seems they expect far more of me; they are looking for role models, for someone who has awareness and deeper understanding of their issues and their deeper selves. Lauren and other students have standards that they apply in judging their teachers and this is often established by the role that the teacher has – based on the power sharing in the relationship. But now I have created a situation where the teacher/student lines are blurred; both in the context of who has the power in enabling the learning as well as moving from ‘distant authority figure’ into a mentor and friend role. Yes, we don’t expect the standards we might apply to a friend to apply to a figure writing up on the board in front of the class who we see five hours a week.

So now there is a tension between all the multiple roles I am taking as a teacher, some of which are quite contradictory. Walking this tension is both a problem for me and my students and we are working our way through exploring new territory.

Is this a rite of passage for my students? Where they are moving into the adult world of *self authoring mind*, finding a sense of equality, discovering their own power, moving from expecting ‘authority figures’ to be perfect to valuing the process of looking deeper into behaviours and coming to know and understand another.

Is this a rite of passage for me? Perhaps, it is about discovering a new inner honesty and reflectivity and finding a way of being *appropriately* transparent to my students about my own dilemmas and learning. I show my vulnerability, I am authentic. I am not just a teacher of *knowledge, processes and skills*, where there is an implicit contract between teacher and student – I am also a fellow human being on a journey.

Mezirow (2000) might nod wisely and say that what is happening here is

### Some Teaching Metaphors I am dancing between

Leader  
Constructor  
Developer  
Improviser  
Initiator  
Perturber  
Inspirer  
Catalyst  
Intriguer  
Surpriser  
Motivator  
Mirror  
Revealer  
Occasioner  
Entertainer  
Comedian  
Facilitator  
Collaborator  
Conspirer  
Helper  
Manager  
Organizer  
Director  
Mentor  
Coach  
Nurturer  
Carer  
Listener  
Trainer  
Disciplinarian  
Negotiator  
Mediator  
Lecturer  
Emancipator  
Empowerer  
Role Model  
Healer  
Friend  
Advisor  
Learner  
Anticipator  
Follower  
Mother  
Significant other  
Wonderer  
Optimist  
Judge  
Supporter  
Human Being

Fig 11.1

transformative learning:

Adult educators create protected learning environments in which the conditions of social democracy necessary for transformative learning are fostered. This involves blocking out power relationships engendered in the structure of communication, including those traditionally existing between teachers and learners.

Easier said than done.

### **Can I be too open and transparent and what might this create?**

In 1998 after reading a paper which described a teacher's tactful response to a student's English journal and the resultant inspiring journey, I looked very carefully at how I was responding to my journalism students' journals. I explained to my journalism students the gist of the paper and asked them what they thought of my responses to their journals. That I was concerned I might be too patronising or criticising rather than helpful, welcome and sensitive to their needs to go on their own journey. What might it feel like to welcome a teacher's responses?

They were all very surprised with my question but the verdict was that they were very happy with my responses... unlike many of their experiences of writing journals, where teachers did criticise; they actually looked forward to reading my insights and suggestions. One girl said sincerely "But Sue, we really appreciate you asking us and finding out about how we feel about this. No teacher has ever done that before... asked me how I feel about the way they comment on our work. Thank you!" It was an important lesson for me and one that I took on board in establishing the "I wonder" journal in my Physics class as well as the comments I would scrawl across students' work. Note to self: check what students value in feedback and realize it is different for everyone. Put yourself in their shoes and ask *How might you feel if someone wrote this or said this to you?*

**1999** – Travis. You read his journal entry in Chapter 9 on The Dialogical Classroom. His entry was only possible because we had a classroom climate where it was okay for him to talk openly about his frustrations with his learning. When I read his journal entry, I was initially horrified. It might be easy to dismiss it as the rantings of a very immature and selfish boy. Yet there were elements of truth there in what he said about my classes and his passion revealed some of his needs. Yes, there was much he had misunderstood.

It made me realize how much goes on with our students that we just don't know about and how much they often bottle up. And how important it is to continually check for meaning, to allow for think time, to allow students to talk about their learning, especially when such a course as physics is jam-packed-full, with little room for manoeuvre or for student involvement in determining that learning. I had opened the door for him to express his concerns – and that he was upset was clear by his writing - but in doing so did I make myself too much of a doormat? How much consideration should he have shown to me?

Since then I had a Maths student, Shannon, explode after I provided some structure to a topic her group had chosen to do, saying to me “why did you have to ruin this topic by making it so hard – it was something I really wanted to do!!” Her energy blast hit me and I was utterly astonished, just standing still and accepting it. I said very sincerely how sorry I was. She stormed away but later calmed down and apologised to me, saying that she realized she only had to do a small part of what I had put in the group's folder and that it was okay.

I asked her whether she was normally this frustrated in her other classes and whether she tells her teachers this. “Yes, I do get frustrated but I can't tell them that. I just have to sit and put up with it. I feel I can tell you... you are my favourite teacher. Maths has been the only subject I feel I have had control in which I guess is why I got so upset when I thought you had ruined this topic for me. But don't worry, I am planning to leave school as soon as I get a job.”

Yes, Shannon I can see why you are frustrated and part of that is from the mixed messages I gave you – on one hand allowing you to choose the topic the class was to explore – alcohol and teenage binge drinking – but on the other hand shaping how you might explore that – through surveys – and then linking it to maths sheets to build up skills in this area. I seemed to promise you autonomy but didn't really sit with you and help you build your own pathway through this experience. Oops, was my head too in the place of asking *how can I link this experience to maths learning?* I explain my dilemmas to Shannon and how she has made me really question whether I could have done this in another way. She is pleased with my openness. “Next year, just explain to your students what you have explained to me.”

In all these cases – Lauren, Travis, Shannon, my journalism students – a key is an ongoing dialogue – a conversation in which we are finding our way. I am not sure of myself at all because this is unfamiliar territory so there is a lot of tentativeness. Sometimes I am thinking carefully and acting strategically, and other times I just show my true reactions – a ‘use of self’ - in honest and authentic ways, even though they might not be the most ‘strategic’. In

really listening to my students and trying to step into their shoes and their perspectives it perturbs my own understandings of my role as teacher.

However, it seems that my authenticity, this willingness to change my views and explicate my dilemmas and changes, enables a deepening of relationships with my students. Some of those relationships which are problematic – create misunderstandings and issues – can end up being the deepest and more caring because of this rocky journey that we have been through. It is interesting that in being more open and equitable I experience more raw emotions from my students than I have ever done before. And I am really concerned at what has been bottled up and what I am seeing and hearing.

Some of my students begin to tell me stories about diminishing experiences they have had throughout their school lives – not just my maths students, but also some of my physics and quite a few of my journalism students who have felt marginalised in different ways. Perhaps my physics students just have a greater resiliency because of more supportive family lives which is why they can be more academically successful. Yet, in my 1998 Physics class I have 3 students taking anti-depressants that I know of, and one with bulimia.

Year 11/12 is a tentative time for these students – most are moving into or through *self-authoring* stage – determining their own set of values, purposes, choosing who they want to be and do, deciding their future careers, looking for greater control and autonomy in their personal lives – and most struggle to find appropriate voice and appropriate control. So while I am looking for appropriate transparency and balance in handing over control, I need to allow them the space to find out how to use these new freedoms and help them in making sense of their experience of doing so.

Perhaps there is an equity in the disequilibrium we each feel? But I also long for some stability, and when I find it, might this entrench me in new disempowering ways with my students?

### **Unpeeling the layers – a deconstructing of self and structures**

During 1997 and 1998 I experienced for myself within the school system some of my most disempowering experiences in my life... not just one, but one after the other. I am a goose trapped in a bottle and I am just beginning to see its shape, but yet have no idea how to get out.

My movement from an *action research cycle* of Kemmis and McTaggart (1982) to the *action inquiry model* of Torbert (1991) was synchronous with these various upheavals. Torbert requires one to adopt a ‘critical subjectivity’ where one reflects not just on the issue (the object) but rather on oneself and the underpinning assumptions that one might be bringing (the subject).

Torbert’s *Action Logics* model is based on a hierarchy of different management styles which he ascertained through studying business leaders. Inherent in his model is the notion that when you are thinking from one perspective you can only interpret your situation within those conceptual frameworks. By engaging in a process of self-reflection and questioning of underpinning assumptions, values and habitual ways of thinking, you are able to move to a higher level of perspective enabling you to manipulate that which you were immersed in and could not see. (You will notice that his ideas are very similar to the field of Adult Transformational Learning (Mezirow 2000) as well as Kegan (1982). Although his study was based on management practices, his model was the basis for Cook-Greuter’s (2002) research, which Patricia Gordon (personal communication, July 6 2005 and forthcoming paper) used to develop the *perspectival stages* which I have been referring to throughout my writing.)

So during this time I am engaged in a deep questioning of myself – my spirituality, femininity, underpinning teaching metaphors, where my notions of pedagogy and purposes for education have come from, what do I really value, how I interact with others, my management practices, my notions of science. From an integral perspective I am in the process of reflecting on and transforming many different development lines *all at once* which puts a lot of stress on the *body-mind-soul-spirit* system. It was a vulnerable navel gazing process which went through various iterations as the sources of my ‘disorienting dilemmas’ kept coming. As a result of this reflective process I realized that many things I did were just habits rather than well articulated intentions. Some aspects of myself were constrained and needed to be liberated, others involved a disintegration and re-integration. I had to re-invent myself – find out what I really did believe and who I wanted to be.

For me this was a painful process of unpeeling many different layers of my professional and personal self, going deep into



the very heart of me. It was scary and I felt rootless for a while, even more vulnerable and open to the views of others. It was a time of great tentativeness, trying on new roles, and trying to find a place which I could call home. It is interesting that at the time someone asked me what I could least do without and I said 'my home'. I thought then I meant my house, but I think now it was a metaphor – a need to find that stability – my inner sense of self – my *spiritual home*. Yes, I was someone buffeted in a wind not of my making; trying to find through spiritual practice and through teaching practice some grounding.

The very process of reflection changed me and now when I looked around I could see deeper into the issues at hand and see the spectrum of management structures and ways people operated which perpetuated certain types of response to the issues. Torbert's *Action Logics* now made sense to me and were a powerful model in helping me to be a more effective manager and feel more in control of myself, rather than a victim of circumstances.

Can my emergent understandings help me also to be a better teacher? I now believed that it was important to fully articulate my intentions and the various purposes for my teaching approaches and activities. In making my pedagogy transparent to myself I could be a master at designing activities which were rich opportunities for learning. For example, I created activities which could simultaneously get across concepts of physics using various intelligences, while enchanting the students, supporting their passions, developing certain capacities and encouraging critical reflection on their personal beliefs and the nature of science. Yes, and there are also steak knives with that! I became a master (or was it a magician?) of juggling different intentions, creating rich learning experiences as well as allowing for emergence. Yes, come into my magical classroom where I can integrate constructivist, meaningful, questioning, significant, dialogical, ecological and ethical learning.

But am I *enabling* my students?

Yes, as I am experiencing powerlessness, I wonder whether my students are also experiencing this and I begin to pay closer attention to what I am doing in my classes. I start reading feminist discourses which alert me that there are more to issues than people coming from different perspectives or cognitive frameworks. There are inherent power structures in every aspect of education, from teacher/student relationships, learning theories and curriculum structures. These are generally unquestioned because they are so deeply part of the fabric of our education and social system. Yes, thank you Lauren for helping me to see my habitual assumptions about teacher/student relationships.

So how might I be perpetuating power inequalities in the teaching of physics?

I have tried to put in place empowering structures for students where the **assessment processes** are transparent, where we negotiate meaning and students are empowered to believe what they want to believe. By introducing **meta-cognition** I have tried to help the students unpack what lies behind many of the rules and cultures within science, sometimes encouraging them to come up with their own personal schemas or procedures while at other times providing them with heuristic devices to aid in their reflection. Do these heuristic devices shape the emerging insights and how could I give the students more ownership and choice in these?

I have tried to help the students understand their own **learning styles** and be more in control of their own learning, yet I am the one that ultimately plans the activities and orchestrates the learning in the classroom. In doing so I engage in little explicit negotiation with my students, rather it is based on their feedback or my observations of what I think they need and my own understanding of learning theories. I am the creator using their information, rather than *we create* learning activities together. The exception is when different groups run activities for the class, but this is still a task I have set them.

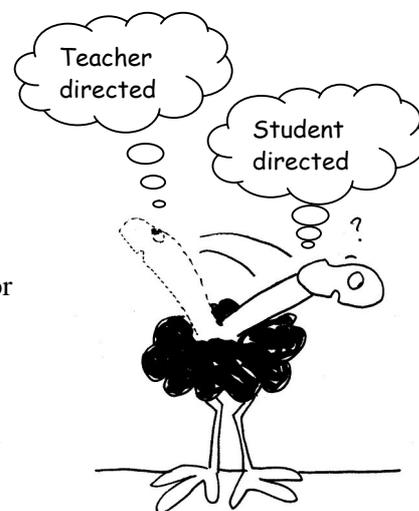


Fig 11.3

The more I try to be transparent about underpinning structures of learning or science, the more I realize that there are even more structures which act as constraints... and sometimes in the very act of making something transparent I might be putting in place disempowering structures.

For example, in getting students to mark their **mid-year exam** exactly as the examiners will at the end of the year gives them very valuable insight into the process which enables them to be more strategic and in control when they come to do their final exam. However, students may feel quite stressed about the thought of marking exams - others seeing their work, not feeling competent enough and afraid their marks might suffer if someone as 'incompetent' as them might mark their exam. So imposing such an activity without giving students opportunity to discuss their concerns and negotiate is as disempowering as the empowering experience I am aiming to create.

And then there is the whole question about the **nature of the exam** itself. It helps to determine student understanding in a paradigm which values 'right knowledge' and 'right procedures'. Students who are operating at *self authoring mind* used to coming up with rich, complex understandings of real situations are being tested using a *socialized mind* assessment device. Some educators might argue that the exam acts as a goal and a focus, yet this statement assumes we value learning where students achieve goals rather than have experiences which foster self-growth and understanding.

A key function of the exam is to act as a moderating tool for teachers; a way of checking their standards as well as ideas about physics.

The exam establishes the content to be covered and the minimum depth required, ensuring students acquire foundational knowledge considered important to further education courses. Can teacher moderation of standards and content be done in another way? Is some knowledge more foundational than others? Should I be asking not how to help my students be better at doing the exam, but rather whose needs are being met by the exam?

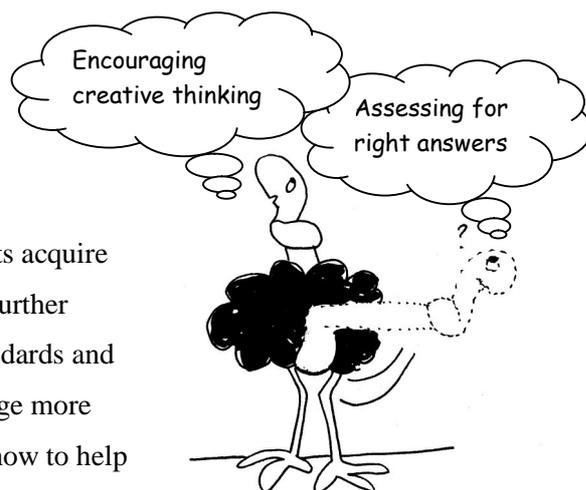


Fig 11.4

What is the role of the **criteria and standards** for the course? On one level they help students make explicit what it is assessors value in science (or other disciplines), enabling them to be more strategic in their learning, being more in control of their performances and outcomes. But when the standards are overly complex, poorly articulated or with no clear sense of development they serve to mystify and alienate students rather than demystify and empower.

They can be a means for assessment *of* learning (summative assessment), assessment *for* learning (help teacher diagnose and plan appropriate learning experiences) and assessment *as* learning (students learn as they assess themselves and each other). The very act of self-assessment can also build self-capacity in terms of self-reflectivity, self-awareness, discernment, confidence in self and their ability to judge and to create own standards.

But assessment can be quite artificial - it can give students a false sense of what it means to complete a task. For example, my journalist students for the first time in their school lives had to iteratively work on their writing to get it to sufficient standard for publication, rather

than just being happy with a C or B before moving onto the next task. Yes, it was tedious, but all said they learnt a lot from having to produce something for real.

At another level, the criteria contain a whole lot of assumptions about the nature of the discipline which could be open to challenge. For example, in science syllabi, we could question what constitutes scientific inquiry, validity, integrity. Embedded in the standards are implicit values. For example, we value people who show the following characteristics: discernment, autonomy, breadth, depth, initiative (which are primarily interpreted from the pragmatic, enterprise *orange cultural meme* of Spiral Dynamics (Beck and Cowan 1996). And then there

is the very notion that there are standards to be reached and that these can be simply summarised in 10 criteria (which is the case for every single 150 hour subject offered by the Tasmania Certificate of Education.)

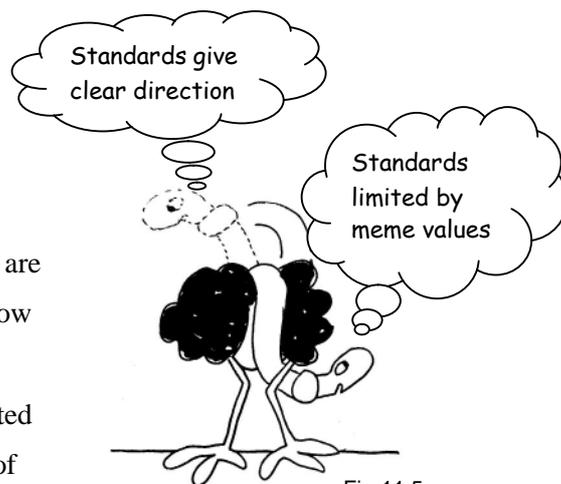


Fig 11.5

How can I balance the need for the students to know explicitly what the teacher is looking for in ‘good quality work’ with the space to allow for emergence? How do I renegotiate the definition of what constitutes “good quality work” or even ask whether it is the work that is the important thing? How do I balance the need for students to renegotiate based on new aims and a new sense of self, with the need to validate where they have already come from? How can I value the breadth of learning which comes out of my classes but which is not valued through the criteria? For example, where is the criterion that recognizes transformative experiences and can this even be measured by standards?

I am really searching for democracy, not just in the way I interact with my students, but in the underlying structures of syllabi and assessment protocols.

Then there is the **content of the course** which is based around key ideas in physics. This subject is about coming to know a discipline and a discipline’s approach to investigating the cosmos. You could say the big guiding question for this course is *what can physics tell us about the universe?* This is a very artificial question and quite different from courses which might be based around real research issues such as *climate change* which require multi-disciplinary approaches. Does this give students misconceptions about the nature of research – that it simply follows along topic lines? Yet, the course itself provides a rich context for exploring far more than the universe.

What is the value of ‘learning’ a discipline? For me, part of that is learning how the discipline fits within other epistemological approaches - but this is not required by the syllabi, just something extra which I put in, taking time away from covering the examinable content.

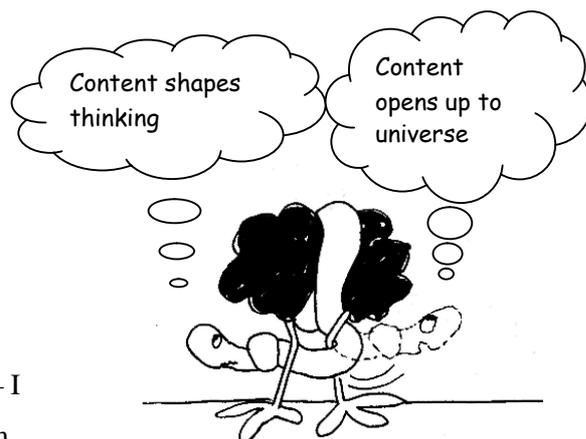


Fig 11.6

I feel quite constrained by the *amount* of content – I would like for students to experience a longer term investigation of their choice where it doesn’t matter what “content” they learn from it – it is the process they go through in an autonomous inquiry. I would like to explore a multi-disciplinary issue or problem so students can see how to appropriately integrate together various epistemologies (I do this to a small extent with the issue *Is your mobile phone killing you?*). I have tried to contextualise the raw ideas of physics (e.g. circular motion can be contextualised by satellite motion and space flight, sound waves by the physics of music) asking key questions that motivate the need to explore each topic, yet I am concerned that my thinking is trapped within these artificial topic boundaries. I have become more clever and creative in making them meaningful and significant, without really questioning the value of doing so.

I am also still concerned that the very delivery of the physics course is based on the **Newtonian paradigm** of building knowledge bit-by-bit. Although I have tried to play with more holographic approaches in exploring topics, there is still much which is sequential in what I do. The very need to cover set ideas forces me into a narrow approach, assisted by my own need for logic and coherence. I wonder whether if the content was less defined what interesting routes and ways of thinking we might find as we explore questions or issues.

So what might it mean to see science education from a completely different point of view? What is foundational knowledge? What are the benefits of discipline knowledge? How can we find balanced ways of providing multiple experiences of science? What assumptions about science are we inadvertently giving our students as a result of the structure and pedagogies of science courses? How might we be empowering students as learners, scientists and global citizens through these courses?

It also concerns me that these academic students are learning all their subjects in a particular way – based on acquiring knowledge, processes and skills. They are not experiencing the

sort of learning my journalism students are – learning through action – learning to be **active citizens and agents** for change. Can a sense of agency just come through understanding and challenging your own belief systems?

But all this is still thinking from a very pragmatic place centred around the belief that it is important to teach students particular things - whether they are content, skills or attitudes of mind. What is education really for? I am really confused now. Isn't education for the whole person? And what does that mean? **Where is spirit in all this?** When we forget spirit are we suppressing the healthy development of the child? Is ignoring spirit one of the most disempowering things we can do?



Fig 11.7

During the period of 1997 to 1999 I was trying very hard to come up with an understanding of what education is for and what it might mean to educate for the whole person, including the spiritual aspects. Initially I saw spirit as something that added enhancement to students' experiences. For example, I used Egan's (1986) development model (*mythic, romantic, philosophic, ironic*) to plan activities which could stimulate deeper aspects of self.

When I discovered the development models of Steiner (Childs 1996) for the first time I found a coherent system which explains development of the child through spiritual development.... Yes, and it made me very worried. If this model is correct – that our subtle energy and spiritual bodies incarnate into the physical body in successive layers every seven years or so - then education which understands the implication of this and can assist it would be critical. To not do so might set up stress in the growing child. Particular Steiner education philosophies - such as not requiring students to move into abstract thinking or make judgements too soon, instead building aesthetics and heart are based on avoiding stress to the developing *spirit-soul-mind-body* system.

It seemed to me that Steiner is perhaps revealing development stages of the *spirit-soul-mind-body* system, whereas Egan is looking at *soul-mind*, and Piaget at the *mind-body* level.

What is my role then in helping to develop integrated *spirit-soul-mind-body*? What might it mean to help students heal that which has been poorly integrated and assist in further healthy integration? What damage might I be doing? And how do I reconcile this role with one of

teaching science? Yes, my head is going to explode! I have too many dilemmas at too many different levels or dimensions.

### Can looking at Curriculum Metaphors help me understand my dilemmas?

Now let me move from my 1997/1998 self into my 2006 self, who has become a student of integral theory and curriculum metaphors. It seems that many of my dilemmas are a result of competing curriculum metaphors, some of which have been described by Schubert (1998). I summarize them below.

(Note: I have located these curriculum metaphors primarily within a specific meme in the spiral dynamic spectrum for the purpose of illustrating perhaps their cultural origins and intent - which is a little simplistic – in reality each metaphor could be situated across a spectrum of cultural memes according to the context under which they are operating.)

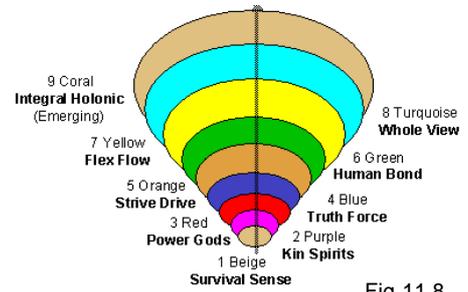


Fig 11.8

Curriculum Metaphor	Description	Intent	Criticism
<b>Curriculum as Discrete Tasks and Concepts</b>	The curriculum is seen as a set of tasks to be mastered and is derived from training programs in business, industry and the military.	'Apprenticeship' with an adult to gain certain knowledge and skills.	Does not prepare the learner for a changing world. Suited to technical training rather than conceptual understanding.
<b>Curriculum as Content or Subject Matter</b>	This metaphor portrays a traditional image of curriculum that stretches back to Pythagoras and Plato. This curriculum is one which receives contents from traditional academic disciplines and transmits them to the learner.	Curriculum development centres largely on subjects, contents, timetables and booklists. Needs may be defined in terms of preparation for university, commerce or general study.	Does not account for cognitive development, creative expression, and personal growth. Nor for planned and unplanned activities that are a major part of students' experiences at school.
<b>Curriculum as Cultural Reproduction</b>	The curriculum metaphor is concerned with the notion of transmission of cultural knowledge and values from one generation to another.	To prepare the youth for the culture of a certain community, state and country.	Helps maintain the status quo by transmitting middle class culture rather than that of the oppressed. Does not help develop critical thinking.

<b>Curriculum as a Program of Planned Activities</b>	Student learning is regarded as a planned program which is directed and executed by schools. It includes written documents – teacher guides, lesson plans, scope and sequence chart, and curriculum implementation packages.	Curriculum development centres largely on planning activities that are considered desirable for students.	Emphasizes outward appearance rather than inner development. It values outcomes and neglects the learning process and personal meaning.
<b>Curriculum as Intended Learning Outcomes</b>	Curriculum is a process of goal setting and drawing pathways to those goals. The outcomes are expressed in general terms like “ <i>understanding the value of...</i> ”. Today most curriculum frameworks have incorporated this image.	The curriculum is explicit and defensible. Teachers and students can determine their learning activities according to their needs and locale.	Draws attention away from unintended outcomes relating to school culture and the hidden curriculum.
<b>Curriculum as Experience</b>	This image of curriculum, following John Dewey, emphasizes experience rather than sets of activities. Learners select a learning experience according to its significance in their life.	With this notion of curriculum, the learners have a key role in curriculum process. Experiences are created as learners reflect on the learning process.	Students’ involvement in planning and selecting the learning experiences is very idealistic - they may not be able to decide which is of significance and which is not. How do you implement this in a large school?
<b>Curriculum as Agenda for Social Reconstruction</b>	This view of the curriculum holds that schools should provide an agenda of knowledge and values that guides students to improve society and the cultural institutions, beliefs and activities that support it.	To improve society – either by teaching desirable changes or by equipping students with critical thinking skills.	Even if schools were influential enough to effect change do educators have the mandate to direct change?
<b>Curriculum as “Currere”</b>	The curriculum is the interpretation of the learner’s lived experiences – the learner comes to understand their past, how it drives the present and how it directs the future of their personal and professional life. Individuals come to a greater understanding of themselves, others, and the world about them.	Freedom from unwarranted convention, ideology and labelling. To mutually fashion new directions for oneself, others and the world.	Self-understanding is a parental responsibility. The search for self-knowledge requires professional therapists.

Fig 11.9

As soon as I put Holistic Education at the centre of my teaching practice I am moving into curriculum metaphors which differ from those under which the Tasmanian system is operating. I am trying to balance the authoritative *blue meme* (*Curriculum as content or subject matter* or as *cultural reproduction*) with the pragmatic goal oriented *orange meme*

(*curriculum as a set of planned activities or intended learning outcomes*) with the democratic pluralistic green meme (*curriculum as 'currere' or experience or an agenda for social reconstruction*). I am searching desperately for an integral solution.

Where does education for the whole person - the spiritual interconnected self - come into these metaphors of Schubert? Is it an extra dimension to each one? A new metaphor? Is it in the space in between? Is it possible to twirl around, incorporating multiple metaphors or are some mutually exclusive? Is it possible to only be consistent to Holistic Education ideals only if I am within a school dedicated to following these, rather than trying to create a holistic space within the mainstream system?

### **What might be a Holistic curriculum metaphor?**

Scott Forbes (2003) conducted a study of some schools in the US who called themselves *Holistic* or *Democratic*, finding that many are consistent with educational theories of Bernstein and Rousseau. He summarizes key aspect of these 'Holistic Schools' as follows.

1. **All students are inherently competent** – students possess inherent learning processes, motivation and latent wisdom – no deficits, only differences.
2. **The student is active and creative in the construction of a valid world of meaning and practice** – heuristic process, arising from students' questions and readiness (not enforced content), meaning needs to be discovered by each person, group meaning, tolerance/accommodation, constructing convergent meaning through dialogue, *forming* of ideas (seeing connections) rather than *holding* ideas - leading to insight.
3. **Finding meaning can't be regulated** – children do not need to be shaped by older, more knowing adults into forms the adult feels are right. The child's meaning structures do not need to be shaped. Self regulation is both a means and an end. While outside regulation can help, to rely on it is counter-developmental.
4. **There is a critical, sceptical view of hierarchical relations.** The teacher's function shouldn't go beyond facilitation, accommodation and context management. Adult role is to support the individual learning process of students and not to determine them. Facilitate experiences which may help student to know oneself better at the end, but the content of that knowledge can't be known or regulated. Teacher

attributes are: understanding students, their needs, correct pedagogic process, relationships and importance of their own development. Teachers are active and creative in construction of valid meaning and practice. Students have a role in hiring and firing teachers.

5. **Shift in time to the present.** The ‘now’ is perceived as when the connections at the heart of meaning are made, and need to be remade, if something is to remain meaningful. Remembered connections are not as powerful.
6. **Being precedes doing** – what a person ‘is’ is more important than what a person ‘does’. Education should be primarily about developing a student’s being. The problem with *becoming* is that it focuses on the future, what one hopes to be, rather than the present – what is.
7. **Everyone who is actively engaged in the learning process must be learning** – reciprocity in adults and learners.

I believe that what Forbes is describing here are schools whose centre of gravity is primarily within a *green* cultural meme. From Schubert’s point of view this might be best described by the metaphor of ‘*Curriculum as experience*’. These schools represent just one sector of Holistic Education – one which is often criticised. Unlike models by Miller (1996), Nava (2001), Nakagami (2000) and Steiner (see Childs 1996), they do not appear to have well articulated spiritual pedagogies. The notion of student choice in learning is in direct contrast to Steiner philosophy for young children, where he believes that requiring students to make judgements or choices too early damages the healthy development of the individual.

So why do I introduce this? Because it provides an example of how some schools have tried to move from the *orange meme* into the *green meme*. Even though these small schools usually contain a spectrum of ages, the principles might be particularly relevant for Year 11/12 students who are moving from *socialized mind* to *self-authoring mind*. It also enables me with the benefit of hindsight (because the book was not written while I was teaching physics) to explicate some of my tensions.

I see that I too believe that **students are inherently competent and have latent wisdom**, yet in physics I am delivering set content with carefully constructed activities to create certain opportunities for thinking and understanding. However, I do try to excite students’

curiosity and bring in their own questions, enabling a certain freedom for student construction of meaning.

I wonder then what it might mean to enable freedom for science students to pursue what they want to pursue, and whether they have the skills or sense of self to do this because of our socialising curriculum. What structures in colleges of 1000 students could enable this or is it only possible in small intimate schools? And how does a freedom to pursue what you want provide pre-requisites for further education? Is it possible to balance some opportunities for freedom with more structured approaches?

### **Australian Maths and Science School in Adelaide**

- Enables Year 10 and 11 students to learn most of their discipline knowledge (English, Social Sciences and Science) through science projects they are doing which are linked to scientific research at Flinders University.
- Students are aware of their own learning styles and have help in mapping their progress and achievements throughout their journey.
- They then move into traditional Year 12 where they are able to get properly accredited against the State education system.

Fig 11.10

Yet in teaching journalism I have been able to immerse myself in the *curriculum as experience* metaphor (albeit students assessed at the end of the day against criteria and standards.) Students learn through *doing*. I give my students the power and freedom to pursue a group magazine of their choice, to follow their passions, express their voice and learn how to become effective agents in changing and creating their world (*curriculum as an agenda for social reconstruction?*) I provide some structure and cohesion, some 'just-in-time' learning activities, some 'just-too-late' debriefing and I *occasion* opportunities to challenge thinking and perspectives.

I also encourage deep reflection of their learning experience – asking them to reflect on how they and their thinking are changing over time (*curriculum as currere*). While I have taught my physics students how to think, how to apply critical lenses and understand paradigms – a mental emancipation, my journalism students have also been empowered through *doing* and *reflecting* - engaged in a journey of self-awareness, discovering their self-power - perhaps a holistic empowerment of self.

But I haven't stimulated in my journalism students a sense of curiosity nor a sense of awe in the universe in the way I could with my physics students. It seems that my physics students have journeyed outwards into the cosmos and my journalism students inward into self. Perhaps there is room for both experiences in a student's overall course in College.

Back to Forbe's list. I now wonder whether I have an **agenda about shaping or forming students** according to the different development models and value systems to which I

subscribe or whether understanding these development models enables me to be a more effective *facilitator*. Is just being a facilitator a little simplistic? Are there more roles? What teacher roles are consistent with Holistic Educational principles, which are contradictory and is it important to be consistent? Is democracy taken too far in these models? Is democracy important for students as they approach the adulthood transformative learning of Mezirow, but might it be less appropriate at earlier stages?

I wonder what an **accreditation process** might look like that can help employers easily understand and value the *being* of the whole person who they might consider employing. And from that what might our curriculum frameworks and assessment models look like which support *being* as well as *doing*? Where would *standards* fit here? Yes, how does the notion of *being* have meaning in the context of our pragmatic, material world?

I wonder about conversations that might take place in colleges about the **relationships between teachers and students** and what it might mean to enable true **democracy** in these relationships. How might teachers and students have to reconceptualise themselves? What might it mean for different teachers to operate from different memes of ethical tactfulness? What new types of ethical tactfulness might we have to practice as we move in *memes* and what processes can help build these self-capacities? Where is the time for all this?

What sort of culture in colleges would support **teachers as vulnerable learners**? How can teachers be encouraged to take risks, make mistakes and learn from them in the same way that an experiential curriculum allows students to do so?

What about **democracy** in questioning the **underlying power structures** in the processes and pedagogies that we bring to teaching/learning? For example, my interest in making physics more ‘girl friendly’ moved from an *orange meme* approach where I tried to make it more relevant to girls (personal contexts, ethical and social issues) to developing discourse structures that could enable them to be part of a physics conversation – moving to the *plural mind* critical theory approach of the *green meme*. But what other pedagogies might I be using which haven’t moved to a more pluralistic approach? Does it matter?

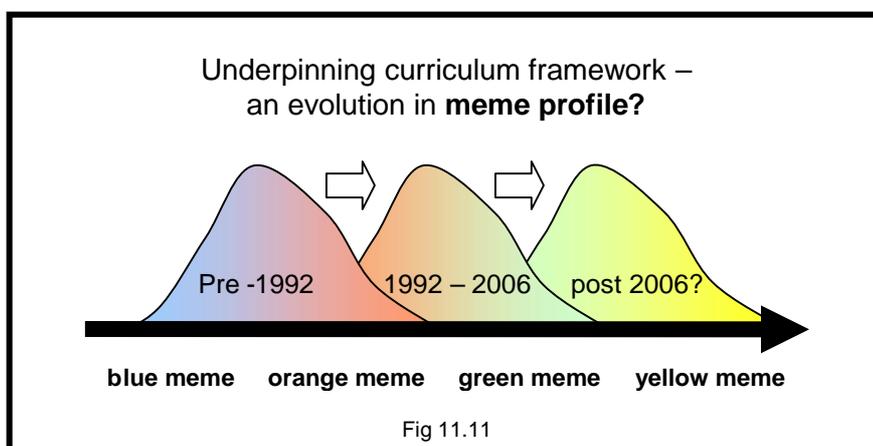
I wonder about opportunities for enabling students to *be* in the **present moment**. How can I help students be active constructors of meaning and experience? Where might spiritual practice assist in fostering greater mindfulness and presence? Perhaps here there is a reflexivity between *being* and *doing*... not one or the other... but a partnership which also includes *reflecting*.

How does the course enable students to learn things which are not simply useful for a distant future but also for the immediate present? How much of the physics course is foundational knowledge or building blocks for later? Have I made it directly relevant to my students' questions and lives *now*? What might it mean to do this better? What present moment capacities might the course be building?

Oh dear, I want to move forward in meme cultures but the weight of the current system and its deeply embedded interconnections with the greater social community seems to be insurmountable. Perhaps the answer is not moving to a *green meme* model of schooling but an *integral model* which enables aspects of all parts of the spiral? Can we transcend and include? Is it possible to find partial truths which can happily co-exist from the different memes? Or is it also possible to run a system with inherent tensions? Perhaps allowing these tensions to be part of the system rather than trying to solve them is the force which drives continued evolution?

### What is the current culture of the Tasmanian education system?

When the Tasmanian Certificate of Education was introduced in Tasmania in 1992, I believe there was a movement in the underpinning curriculum metaphors from primarily operating in the *blue meme* to operating in the *orange meme*, which was the predominant culture of society at the time – *being enterprising*. A key to this was bringing in concepts of *criteria* and *standards* which opened the box on teaching approaches, valuing far more than had been valued before, making assessment transparent, enabling conversations about subjects and pedagogies between teachers in ways that had not been possible before. However, it did this still within the overall structure of subjects and content.



I don't think that such a transition could have been possible if the predominant culture of society still rested primarily within the *blue meme* (as is the case for many Asian countries who might have difficulty with implementing such a curriculum structure). It would not have been possible without key curriculum leaders operating from the *green meme* (consultancy, democracy in implementation).

It was a *transformative* curriculum framework in that it fostered transformation of the way many teachers and schools operated. It also paved the way for teachers to explore the more experiential *green meme* oriented curriculum metaphors through the teaching of enterprise or project based subjects where students engaged in an experience of their choice, being assessed against generic criteria (key competencies).

<b>Curriculum 1970 - 80's</b>	<b>Curriculum 1990's</b>
<ul style="list-style-type: none"> <li>▪ Preparation for University &amp; work</li> <li>▪ Subjects at Level III (good students) → Level II → Level I (poor students)</li> <li>▪ Examinations and normative assessment</li> <li>▪ Subjects for less able students watered down versions of pre-tertiary subjects</li> <li>▪ Learning factual knowledge and discipline skills considered important pre-requisites for university learning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Preparation for University, work, life.</li> <li>▪ Changing cliental for non-pre-tertiary subjects as students required to stay at school longer</li> <li>▪ Wide range of subjects designed for different abilities and mixed abilities</li> <li>▪ Criterion Based Assessment (A,B,C) - based on achieving set standards transparent to the students.</li> <li>▪ Learning generic skills and processes valued by business (<i>initiative, emotional intelligence, thinking, responsibility, teams</i>)</li> <li>▪ Vocational Subjects and Assessment of Competency (✓)</li> <li>▪ ICT revolution</li> <li>▪ Many students doing part-time work</li> </ul>
<b>Pedagogies 1970 - 80's</b>	<b>Pedagogies 1990's</b>
<ul style="list-style-type: none"> <li>▪ Chalk and talk</li> <li>▪ Sequential learning</li> <li>▪ Desks in rows</li> </ul>	<ul style="list-style-type: none"> <li>▪ Chalk and talk</li> <li>▪ Sequential learning</li> <li>▪ Collaborative learning</li> <li>▪ Problem based learning</li> <li>▪ Enterprise, Project and Community based learning</li> <li>▪ Just in time learning</li> <li>▪ Flexible delivery, ICT</li> <li>▪ Learning styles and Multiple Intelligences</li> </ul>
<b>Teaching metaphors 1970 - 80's</b>	<b>Teaching Metaphors 1990's</b>
Teacher as instructor, director	Teacher as instructor, director, facilitator, trainer, emancipator, mentor

Curriculum Metaphors 1970 - 80's	Curriculum Metaphors 1990's
<ul style="list-style-type: none"> <li>▪ Curriculum as Content or Subject Matter</li> <li>▪ Curriculum as Cultural Reproduction</li> </ul> <p><i>Metaphors from Schubert (1998)</i></p>	<ul style="list-style-type: none"> <li>▪ Curriculum as Content or Subject Matter</li> <li>▪ Curriculum as a Program of Planned Activities</li> <li>▪ Curriculum as Cultural Reproduction</li> <li>▪ Curriculum as Experience (<i>project based learning</i>)</li> <li>▪ Curriculum as Discrete Tasks and Concepts (<i>Competency based learning in Vocational Programs</i>)</li> </ul> <p style="text-align: right;">Fig 11.12</p>

But now in 2006, 14 years later, many College teachers are finding that this framework is creating limits and tensions – it has created a new ‘box’. We have all grown now and many of us, like me, are feeling squashed by that box. We have opened the lid and are looking for new possibilities. Does it have to be a new, bigger box? The challenge now is to create something which is also transformative, but recognizing that the starting point for that transformation has now changed and thus needs to be designed from a new paradigm.

“We can't solve problems by using the same kind of thinking we used when we created them.”

Albert Einstein

Meanwhile, there has been a revolution in K-10 education in the state – the *Essential Learnings* which has moved further away from delivery of ‘subjects’ to providing more project based, integrative experiences for students alongside the traditional discipline learning. There are now no longer subject or discipline based criteria or individual subject marks – rather generic criteria. So high school students might be assessed on *being literate* or *being numerate* from three different ‘subject’ teachers giving an amalgamated assessment – a problematic process that teachers and the community are experiencing difficulty coming to terms with.

Some of the generic criteria reflect values from a *green meme* – helping students create a sustainable world and preferred futures, become agents in democracy, encourage critical and reflective thinking. What do these mean? In some schools, some teachers are having difficulty in creating pedagogies that enable their students to *act* democratically. It

“A sense of agency implies that one can understand perceptively. Such understanding requires the ability and disposition to become critically reflective of one's own assumptions as well as those of others. Engage fully and freely in discourse to validate one's beliefs, and actively take reflective action to implement them.”

Mezirow (2000)

requires not just different teaching approaches but different attitudes about the role of teacher, students and content. Perhaps, if a teacher has been working in an autocratic school then they might have had limited experiences of acting democratically themselves and find it difficult to explicate what it might mean to teach it.

Can many of the current tensions in the system be explained as a dislocation between the meme profiles of students, teachers, management of schools and school structures, and the underlying curriculum framework? So a manager of *behaviour management* in a college could be operating from predominantly a *blue meme* (control, rules, consequences) while struggling with a new curriculum which aims to enable student freedom and democracy – *green meme* – while working with students who are just moving from *socialized mind* to *self-authoring mind* and who are wanting to experience control and self-expression but whose development line profiles are at different stages (possibly including a poorly developed ethical line).

So the feeling of unease that people have with aspects of the system could be a result of such unexplicated conflicts in both personal and cultural values. And those people might feel marginalized because their values are now considered inappropriate, no matter how deeply and sincerely held.

### **University meme cultures in teaching physics**

In 1999 and 2000 I was coordinator of a collaborative action research project at a university working with five physics lecturers to improve the first year physics courses. (I describe this project in more detail in Appendix 3.) When I commenced the project, I was quite naïve about the issues of transformation; believing initially that it was a simple matter of assisting the lecturers in developing greater understandings of student learning and adopting more effective teaching pedagogies. I thought by doing this I could help shift teaching practice from a paradigm of *physics as a body of knowledge* to *physics as a process of inquiry*.

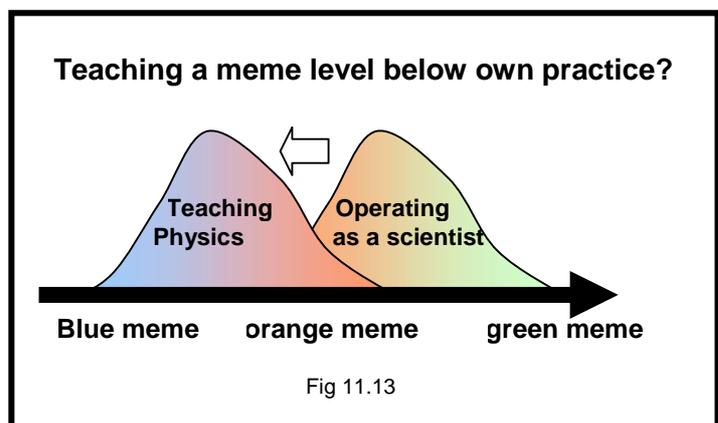
As you have read in the previous chapters, there were complex reasons particular to each participant – their habits, beliefs about science, sense of self - which made adoption of different pedagogies problematic, despite their own intentions to change their practice. Given the individual nature of transformation is it possible to stand back and see larger patterns?

The first step of the physics project was the initial unpacking of what it meant to be a scientist and the nature of scientific inquiry; discovering it was more complex and richer than we had first thought. This gave us clear goals as to the sort of thinking/inquiring environment we would like to create for the students. But in trying to create such environments we gained conflicting feedback from the students and were faced with seeming failures. We were presented again and again with ‘disorienting dilemmas’ which we tried to understand – looking for explanatory theories, trying something else and seeking more feedback.

We were engaged in successive layers of meta-cognition as we needed to look deeper into ourselves... what were the underpinning beliefs and ways of thinking we had about our teaching and about science? Who were we as scientists? How did we think? How is that different to how our students think? How do different people learn? And we needed to create amongst ourselves a meta-language and new style of collaborative inquiring discourse in order to express and explore these deeper questions. Each person ended up coming up with their own learning theories and ways of delivering inquiry based pedagogies, and each took from the project something valuable about the collaborative process we used.

Can we interpret this journey from a spiral dynamic point of view? Perhaps the physics lecturers were initially *operating as scientists* in a culture primarily defined by the **orange meme** (innovation, autonomy, inquiry) while *teaching science* within a culture defined by the **blue meme** (authoritative knowledge)? Was the *way of inquiring into their teaching* (through a process of collaborative reflexive inquiry) helping them to operate in a culture of the **green meme** in *thinking about teaching* (plurality, multiple-perspectives, concern for the needs of others)? As a result of this **green meme** meta-cognition, could they begin to articulate and explore what it might mean to create a *science teaching culture* situated in the **orange meme** level?

Cook-Greuter (personal communication, 2005) suggests that we teach at a level lower to the one we are operating at. By making explicit what we do and why we are doing it, we develop the ability to move to the next perspectival level and thus be



able to teach at the level at which were previously operating.

As the lecturers were involved in unpeeling the layers of their teaching practice, I was also challenged to unpeel the layers of my own practice as ‘educational expert’ and leader. Because although I was teaching my own physics students from orange and green meme perspectives, when I was teaching the teachers – trying to make transparent what I do as a teacher – I found myself falling back to more trivial constructivist and ‘Sue, the authority’ practices (blue and orange memes). The project forced me to move in perspectival level when it came to understanding the transformation of others.

One result of the project was a better understanding of the learning culture of the students and their expectations. It seemed that student exposure to learning in their first year university courses was primarily through a *blue meme* culture – sitting passively in lectures and tutorials, focused on acquiring the information needed to pass the tests and exams. When the physics lecturers tried to change the learning/teaching culture in their physics courses to a more thinking, participatory *orange meme* culture they found that about half the students embraced this process but the other half did not like

it, primarily because it was counter to their other experiences of learning at university. From our interviews it seemed that these students had an expectation that university learning should be based around acquiring content understanding.

### Student Concerns

- Too many different approaches – don’t know where I stand.
- Which bits are being assessed? What do I need to learn?
- I expect to learn information to help me with the tests.
- I don’t want to have to think in lectures – I just want to take down the notes.
- We don’t have to do this in our other courses.
- When we are asked to look deeply into something in a lecture it takes time away from getting the content of the course.

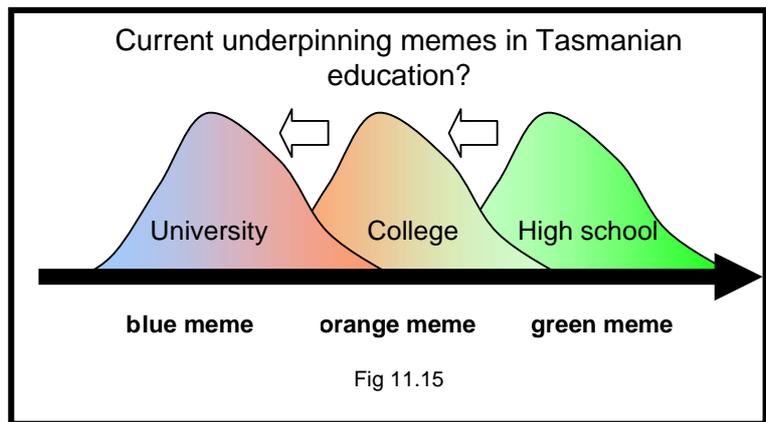
Fig 11.14

How can we change a deeply embedded culture of learning? Where do students expectations of learning come from? What expectations and experiences are they bringing from their College and high school experiences and how quickly do they “fit” into the culture of their teaching institution?

### An integral framework for curriculum

So now if we look at the **whole education system** from kindergarten to university we might see several different memes operating as students move from primary school (k-6) to high school (7-10) to college (11-12) to university.

Should we have a consistent set of memes across the whole education system? What happens if a student moves from a *green meme* in high school to an *orange meme* in college and then to a *blue meme* at university? Is this counter-evolutionary?



Should our educational meme culture be *evolving* to match our students' own development? What might a whole science system look like that takes that into account? (This is what I explore in Chapter 12.)

Could we envision the whole system from an integral perspective? And how might we move to it? What sort of transformative curriculum frameworks would need to be in place to allow teachers to start where they are at and take their own journeys?

Perhaps, an integral framework would take into account the various curriculum metaphors and their cultural location. It would examine practice and ask what aspects of that practice express the positive aspects of a particular meme culture and what aspects detract? How might we then artfully marry the ways of operating in the different meme cultures? How could our processes help flourish and transform all people involved in the system – students, teachers, managers, community?

Perhaps an integral framework might also look at competing notions of curriculum metaphors and ask what purpose of education do these assume? What aspects could we integrate? It might do a quadrant analysis and see which aspects of **I, WE, IT, ITS** are being covered and what might be missing.

An integral framework would aim to be transformative in that it demands of teachers a critical reflection of what they do... by encouraging self-reflection and transparency it stimulates movement in perspectival or meme levels. So it wouldn't only *accommodate* various meme cultures, teaching styles and underpinning metaphors; it would require teachers to engage in dialogue about where they intend to situate themselves and why. It

thus aims to lead teachers into a more integral perspective of what they are doing, though their practice might still be situated in particular memes.

But an integral curriculum framework would also aim to balance the system needs with the individual needs, recognizing and honoring each teacher and their own need to be a master of their journey. It would recognize that each teacher also says something about the system – we are all indicators of the system and it is important to understand what these indicators are telling us. Yes, what might I be telling about the system?

### The role of Integral teachers

If education starts with the *whole person* then what might be the role of a teacher operating under such an integral framework?

Gordon (forthcoming) has suggested that we can map the roles of teachers based on the quadrants, using Wilber's 8 indigenous perspectives as referents. Underpinning her development of such roles is the notion that the key purpose of education is to assist in the Integral development of the student. So, if we consider the student as having - **I** - interior states of being, **IT** - body and the subtle bodies, **WE** - cultural situatedness, **ITS** - inter-relationships - then the role of the teacher is to help each of these aspects of self to *flourish* (inner perspective) as well as to *be perturbed* into the next stage (outer perspective). For each quadrant there are different teacher roles or metaphors that can describe this perturbing and flourishing function.

	<b>Metaphors and roles of the Integral Educator</b>
<b>I</b> <b>Interior Subjective</b>  <b>(upper left)</b>	<p><b>INSIDE: THE GARDNER:</b> facilitating the inner flourishing of students: developing fallow, healthy line, state, and quadrant potentials; introducing the learner to life-enhancing knowledge, insights, frameworks, "stories," and metaphors; helping the learner to extend these and current line abilities across AQAL domains; helping the learner to incorporate the partial truths of split-off lower levels and exclude the limitations of these levels; and creating a climate of psychological safety.</p> <p><b>OUTSIDE: THE ALCHEMIST:</b> drawing forth the inner evolution of students into new levels, especially, eliciting higher stages of the cognitive, perspective-taking line; preparing the ground for the transformation of lines; and moving lagging lines and type up to the level of the learner's current cognitive development.</p>

<p><b>IT</b> Exterior Objective</p> <p>(upper right)</p>	<p><b>INSIDE: THE HEALTH ALLY:</b> supporting, encouraging, or directly enabling the health and healing of the various levels of the learner's body, including the brain.</p> <p><b>OUTSIDE: THE COACH:</b> stimulating the learner's stretching to optimum bodily functioning and the next stage of body and brain development.</p>
<p><b>WE</b> Interior Inter - Subjective</p> <p>(lower left)</p>	<p><b>INSIDE: THE INITIATOR:</b> initiating learners into their culture(s)' unique, interior ways of inhabiting AQAL world spaces and honoring the life-enhancing aspects of these.</p> <p><b>OUTSIDE: THE LIBERATOR:</b> releasing students from exclusive identification with their culture(s)' unique, interior ways of inhabiting AQAL world spaces by helping learners transcend the limitations of these perspectives.</p>
<p><b>ITS</b> Exterior Inter- Objective</p> <p>(lower right)</p>	<p><b>INSIDE: THE CITIZEN:</b> reproducing the unique, exterior ways the learner's society (e.g., societal institutions, systems, and roles) inhabits world spaces; helping learners to embody life-enhancing societal aspects.</p> <p><b>OUTSIDE: THE ACTIVIST:</b> freeing students from reproducing the life-diminishing aspects of their society's unique, exterior ways of inhabiting world spaces by empowering learners to transcend the limitations of these in embodied ways.</p> <p style="text-align: right;"><i>Note: AQAL means All quadrants, all levels</i></p>

Fig 11.16

These provide very powerful metaphors for teaching; opening up rich possibilities, where teachers may realize that they tend to take on certain roles more than others, and that as integral practitioners they also need to examine, try out and develop all roles in their practice.

Underpinning these roles are some key assumptions about the purpose of education, some of which might seem to be competing, particularly when not expressed from the perspective of *integral mind*. For example, two conflicting curriculum metaphors *curriculum as cultural reproduction* and *curriculum as an agenda for social reconstruction*, can be united in this model – one representing the *inner - flourishing* aspects of education and the other the *outer-transformative* aspects across the **WE** and **ITS** quadrants. Similarly *curriculum as experience* and *curriculum as 'currere'* also could be seen to represent the inner and outer aspects across all the quadrants.

Gordon's roles for teachers resonates with me, partly because I was engaged in rich discussions with her in explicating these roles in 2005. Those passionate discussions were an opportunity for me to tease out my own sense of what it meant to be a holistic teacher and to contextualise the roles I was taking within a system culture which may not have supported them. I began to realize that I was, in fact, covering all of the roles of an *Integral Teacher* – my need to empower my students was providing the *outer* element, and my need to enhance the meaning of their experiences with spirit was coming from the expression of the *inner*. I also find her language very beautiful and inspiring, particularly the notion of *life-enhancing* and *life-diminishing* aspects (though is this demarcation subject to judgement?)

Does mapping teacher roles on the quadrants help me? I think so. It helps me understand why I respond to some students in some ways, and others differently. Some students might have issues coming from the **I**, whereas others benefit from help in the **IT** quadrant or the **WE**. Appropriate action on my part requires me tuning into what is happening and working in the area that is needed. The model also helps me to see that all my subjects (Journalism, Physics and Maths) enabled me to take on all roles. So although in 1999 I was feeling suppressed by the limitations of the system, I was still able to dance between these various roles. But perhaps a curriculum framework coming from an integral perspective may have enabled me to be more effective in the way I could express these roles?

The model also helps me see the enormous demands on being an 'integral teacher' and the importance for self nourishment. It makes me realize how much I don't know in supporting the development of the whole person. It is so much easier thinking that your role as a teacher is simply to get subject ideas across!

And where do subjects and curriculum fit here? There is no role saying *instructor of information*. That is because these roles are based primarily on the objective of integral development of the 'whole person'. It is one holon. Asking questions such as *How might I teach physics?* or *How might I design an integral curriculum framework?* would create a different diagram because they are coming from different holon levels.

No, I don't have all the answers. I have only just started flagging the questions.

## **So where does this take us in terms of transforming science education?**

Where do we want to go and what are the issues? What are the implications for teacher transformation and system transformation? What has the description of my journey, my dilemmas and my efforts to create transformation with my colleagues helped in revealing about the barriers to transformation?

I am not suggesting that the 'wonderful world of physics' that I have created is something that should be the vision for science education... but rather the journey I have been on and the issues that have arisen might stimulate thinking, insight and dialogue about where we wish to go from here. What can we learn from my journey through the different classrooms - constructivist, meaningful, questioning, significant, dialogical, ethical and enabling classrooms? What might be missing that should be part of the dialogue? How might the very structure of how I have organized this journey limit our view?

How has the structuring I have done using Integral Theory (outer perspectives) and the going deep into my experience with Holistic Education (inner perspectives) helped in revealing a possible grand narrative for science education?

## **Where am I now?**

Where am I now? Where have my numerous attempts of deconstruction of self left me? Who am I?

In unpeeling the layers of the onion one might expect to lay the person bare. As I peel away, the more I understand what might have shaped and formed me. The more I lay bare the implicit assumptions, values and worldviews, the more I see my interconnectivity and entanglement with the greater world in which I live and how my very thoughts and actions are constrained by the culture of that world.

Yes, I can go even deeper into unpeeling the layers at a mental level but would I then just be riding down a relativistic spiral? At some point I need to stop and be grounded and recognise something important. Yes, I am entangled in the world and perhaps to find this individual whom I call 'myself' I could continue to deconstruct all of this. But when I look from another perspective, I see myself not as a separate consciousness, but something far greater.

Yes, rather than disappearing I am in fact expanding – as these interconnections shape me, they are also the home of my consciousness. Perhaps I need to embrace my entanglement.

As I look deep into the heart of myself, I discover the heart of something far greater than me. I am the world and its culture. And perhaps if I look deeper still I might expand further?

Perhaps as we move up the perspectival levels we are moving from *amorphous belonging* ... to *individuation* ... to *integration* .... to *pure actualized being*. I am beginning to integrate and perhaps in doing so I am finding my 'true home'.

Let me engage my spiritual eye. What do I see? I am you. You are me. You tell my story and I tell yours. When I remember this it engenders a sense of compassion and love, humility, a willingness to be surprised, and non-judgement. What might be possible for us together in this place?

Perhaps, as some people say, the point of education is just to remember.



*Beyond the Tao*

## Interlude 1:

### A poem written in a time of angst... ethical tactfulness for a green meme? The dilemma of teacher vulnerability?

The child, age 5.  
Full of innocence.  
A shining face,  
A longing infused with optimism.  
Hopeful,  
Expectant of everything good,  
Everything worthwhile.  
Life is a joy,  
An unfolding,  
An adventure.

He is yet to experience the boxes;  
The separation of people, of knowledge,  
Of feelings.

Life is an ambiguous, amorphous whole  
Interpenetrated with light.

Experiences are to be experienced,  
Not to be judged, or assessed.  
Possibilities are open doorways,  
Not yet burdens of unfulfilled potential.

The child smiles,  
And imagination flows uninhibited.  
Logic doesn't get in the way of a good story.  
Surprising tangents play at the edge of consciousness,  
Challenging the adult to re-enter the wonderful childlike world of surprises,  
Of unfinished sentences.

But when they come to me at age 16, disillusionment has dulled the shining faces. Yet they still dare to shine. Hopefulness and longing are now cloaked by cynicism, bravado.

Why is misbehaviour such an issue for so much of our education system? An indication of the dashed hopes and the shallow worldview indoctrinated through a soulless, impersonal education production system?

Yet even at 16, after 12 years of this mind-numbing process there are still glimmers of possibilities of hopefulness on the faces of these students whose optimism has taken many harsh blows. And to reach them, to gently blow on that dying spark and see it flame and grow and consume, to see the passion and the longing transmuted into fulfilling participation and joyful questioning - what a privilege for the teacher!

These young people show incredible resiliency in their learning journey. I am humbled. I am a terrified wreck masquerading confidence in my service to others. Yet my own spark is so easily diminished, so fragile. In being with these young people I am nurtured; my self-worth and my feelings of being someone who can make a difference grow. As I nurture them, I am nurtured.

What a state! The dependant teacher. Is this unhealthy or is this indeed the universal principle of flow, of reciprocity? At every level of my role as a teacher there seems to be such interdependency. Unhealthy? No! Authentic relationships swirling into different patterns and roles. If our relationships didn't have this interdependency would they in fact be relationships or just lumps of wood lying next to each other? We both have to catch fire in order to produce a good flame. Can the teacher then stand back, be detached, a conductor, unaffected by the music being produced?

Perhaps it is the fact that issues of my soul are being lived through my teaching experience that brings the depth of relationship that gives permission for students to open their souls. Instead of participating with only the public self they go deeper and bring their hearts and minds fully into experience with their learning and each other. We are open, honest, authentic and whole together. Can I expect them to be so without me doing the same? My angst, my quests, my joys, my enigmas, my excitement *are* me. I let my soul shine forth in my face and alight theirs, allowing them to experience wholeness, hopefulness and the innocence of new found wonder in the world.

**Sue (2000)**

## **Interlude 2: Some students' thoughts about empowerment**

- a contrast between subjects based in different curriculum metaphors

### ***On the inside front cover of Triffany's physics notebook:***

No one can make you feel inferior without your consent.

Eleanor Roosevelt

### **Physics Students (1997 - end of year questionnaire) – to what extent and how has the delivery and content of this physics course empowered you as a human being?**

Giving me the knowledge and processes to help understand the world of phenomena better.

Confidence to deal with washing machines! Understanding how things work.

Seeing science as a tool that you might use under some circumstances.

Spiritually I have been given more ideas with which to form my own beliefs and to contemplate life.

There has been no other learning that I have been so empowered by. I cannot believe that I have been able to gain so much personally and yet still be able to pass the exam.

To be able to think for myself and trust my own processes of thinking.

It is not so much the course content but the skills learnt that have impacted me – things like visualization, goal setting etc have now become part of my everyday life.

**Journalism Students (1998 - end of year reflection for final assessment) – how has your notion of empowerment changed over the course of the year?**

For me, being confident in who I am and what I live for is followed by a sense of direction and empowerment. There are different sources of empowerment for everyone. Bad stuff is going to happen to us and it is how we deal with it and overcome it that will determine to what extent it affects us. The more empowered you are the more likely you will pick yourself up and continually live in hope for a better day.

I think for me, at the start of the year, that empowerment basically meant honouring the right to free speech and being able to follow your own truths while everybody realizes that you have a right to do so. Now, I have also realized that by empowering yourself you are given the power to influence others through your own example. I think that influencing others is a power I have really developed over the last 18 months, because now more than ever I am willing to accept my own personality (good and bad) and become more self-aware. I would not have been able to embrace my own individuality without the freedom to do as I like – the freedom you have given us in this class.

At first I thought that empowerment was a feeling of nirvana, euphoria, absolute bliss. That being empowered meant being happy with one's self. I now think that empowerment is the ability to make others feel this way.

During the year my confidence and self-esteem has been on the increase. Now I feel I could just about do anything if I put my mind to it! Especially with journalism. I came into the class thinking "Am I doing the right thing?", and now it is like "What the hell! I will give anything a go!". So empowerment means a lot more to me now.

I think empowerment has changed for me. At the beginning of the year I wrote a poem about empowerment and since then I have become more like the person I wanted to be. Although this has been the case, it is not through achieving my goals, rather it is in learning about myself ... that I am a stronger person in controlling myself than I am in controlling others.

I think empowerment is the urge to enable yourself to grow, to push yourself to learn, letting yourself learn more, wanting to learn.

## Interlude 3: How to transform others...

### Part 1 – a perspective from Spiral Dynamics

Spiral Dynamics suggests there are two ways for people to facilitate the transformation of others...

1. Someone (usually a person that is 'leading edge'), who has been through the process and is slightly ahead on the spiral, helps to draw others from one cultural perspective to the next and in the process continues to move themselves.
2. Someone (a spiral master), who can see the whole spiral and can go in at any point, takes on the perspective and the culture of those wishing to move and tunes into what is needed to stimulate and sustain movement.

### Part 2 – a reflection on my role as coordinator of a university physics project to improve student learning – assisting transformation.

In my own teaching practice prior to 1999 I had found in myself a deep care and understanding of my students – a compassionate non-judging. I felt close to them, concerned about their needs and wanting to be an advocate for those needs. It concerned me that their capacity for soul expression was not being activated in their other subjects and in some cases diminished. So I might often get quite frustrated with my colleagues' practice in my own school environment, wanting to act as a change agent, stirring things up and challenging current practice

Being involved in the collaborative action research project with the university physics lecturers caused me to question this inconsistency in myself – how can I have humanity with one group and not another?

When I started the university physics project it was very easy to stereotype the lecturers. I had read a study by Taylor (1997) of university teaching of science and maths in the USA. He created two impressionist stories – **Dr Stern** – a conglomerate of male lecturers he had observed and interviewed (who taught traditionally, distanced themselves from students and expected the real learning to happen outside the lecture theatre) and **Mary** – a conglomerate of female lecturers (who was very caring towards her students, building relationships, although she still taught in a traditional way).

When I think of all that is that is wrong with university teaching of science I think of Dr Stern. I know many of my science colleagues also remember their experience of the first few years of university in this way – you are only treated as a person once you get to third year or honors. Yes, some of the lecturers could have been Dr Stern, but were they really? Underneath they were very caring and warm people, concerned that the students enjoy and be excited by physics and experience learning success. It was very easy for me to make value judgments and I had to stop myself, and make an effort to come to know them, their thinking processes, their aspirations. To look behind what they might be doing and saying for the deeper reasons.

In a sense they represented to me an ‘otherness’. I could identify with the story of Mary – my classes were built on the notion of relationships and care. Now I had to identify with the other perspective, rather than rejecting it. This was a little tough. I was often frustrated when well planned activities for lectures or labs ended up being pedagogical disasters. I wondered what on earth had happened and why.

So, for example, a really good idea for group work in a lecture might only partly work because the lecturer hadn’t fully explained the process of the group work and had minimal information on the cards he handed out. Yes, the students told me how confused they were in the interviews afterwards and how long it took them to actually work out what they had to do. So now I listen closer to his instructions and explanations of physics ideas and I begin to realize that he often skips steps. Why?

Then one day I am sitting quietly in an office when he and a postgrad student come in and start using the whiteboard, writing up furiously lots of equations, talking a foreign language. They are fully engaged in this shorthand language and I have no clue as to what has been said. It shows me a completely new side – a highly competent thinker and researcher, totally at ease in his own milieu – a vast contrast to the way he seems in lectures – which comes across as a little incompetent.

So, I now watch the lecturer as he explains ideas one-to-one in a tutorial with a first year student and then I have worked it out. He is just too clever to teach this course. His first language seems to be mathematics and that is how he thinks – he does not need English explanations to tie the maths together. In order to speak to students he has to translate his language into one that they understand.

OK, so now I have a theory of why he finds it difficult to construct others' understanding, I talk to him about it and tell him that I think he is too clever. He laughs, pleased. "Perhaps," I say "You need to see yourself as a *translator*, rather than explaining what you know yourself in your own physics language, you need to understand the students' physics language and thinking which is very different." This seems to be a useful metaphor. So now we look at some of his notes and assignment solutions and I pretend to be a student asking him to explain the ideas to me. We practice until he gets the hang of adding 5 more steps to each of his one, and remembering to put in the English and the concepts. I try to give him the perspective of a student, explaining what understandings they are bringing. Perhaps we are both translators.

He now has to be vigilant in his lectures and tutes, checking with students that he doesn't go too far too fast. It works until he gets asked a question in a lecture which causes him to talk as he is thinking. He totally loses the students because he is now talking at his level of reasoning not theirs. Yes, it is a long process of improvement. But he feels empowered. Now he can begin to see why things don't work, despite his creative planning and well articulated intentions for a lesson. He has been frustrated too, and annoyed with his incompetence. Why didn't I realize this and show him some compassion?

When I am observing his lectures now, I am doing so with much more understanding. I can see when he goes off into his own mental world and realize that this is a big habit pattern for him to change. I can forgive him for confusing the students. We can roll our eyes together at the end of the lecture and laugh about it as he says to me "I know! I did it again... I realized it though, and stopped, and that was a good thing!"

Perhaps assisting in the transformation of others requires a deep level of insight where one enters their world, being with them, laughing about imperfections as one tries to move towards new ways of being.



*Ying/yang -  
in coming to know the  
'other' I discover in  
myself my deep  
humanity*

## Interlude 4: Homework for curriculum planners

**Task:** Discuss the implications for Tasmanian College education of the preceding chapters.

You may wish to address the following questions:

1. What does it mean to put the whole person at the forefront of the educational agenda?
2. What are the implications for education using disciplines? How might they be made more explicit? What might it mean to extend students within a discipline? What role does each discipline have in assisting in the development of the whole person? What are the limitations of teaching around disciplines and what other approaches may be possible? What might integrative experiences look like within and across disciplines?
3. How can we connect to students' passions? What might it mean to make subjects or experiences more soulful and deeply engaging for students?
4. How might we enable transformative learning of both teachers and students in the education system? What sort of school structures and curriculum frameworks would support this? What are the issues when people are experiencing transformation and how can we support a healthy process?
5. How do we accommodate the range of teachers' worldviews, beliefs and values? What value might we be placing on different worldviews? If we value continued evolution of the system then what values might this be in conflict with?
6. What does it mean to bring in integral perspectives to considering the education of the child, developing curriculum frameworks, teacher professional learning, and school management structures?
7. What are the true capabilities of our students and are we enabling them to flourish and to grow in the current system?

8. What are the limitations of our current assessment system? What limitations might occur because of exams, standards? How do we value all that the student learns or becomes?
9. What does it mean to transcend *teaching for understanding*? Where might we move to? Teaching for innovation, meaning, wisdom, self-realization?
10. Should we be specifically helping to develop soul capabilities as much as we are aiming to develop mental ones? What might this mean? Spiritual practice, developing warm heart, ethical practice? Employing integrative models of human development?
11. What is the role of the teacher in all this? How might we value the process of teacher transformation? How might we value the moving into new ways of ethical tactfulness?
12. What are the underlying assumptions in these questions and are the questions worth asking?

**Assessment:**

You can present your response to the questions in any way you like... e.g. as a reflective essay, a conversation between different perspectives, a dance, an art installation, a role play....

In your work I am looking for evidence that you have engaged with the text, making an effort to come to know it, relating it to your own experiences and issues. I am looking for reflectivity and self-awareness. I am also keen to see how you might use this as a jumping board for evolving new possibilities and questions and how it may act as a stimulator in your own flourishing and transformation.

**Self-Assessment:** To what extent (and why) has the text:

- Touched you or spoken to you?
- Perturbed, challenged, annoyed you?
- Surprised, intrigued or inspired you?
- Changed you?

What have you found most valuable in this process? What are the implications for your own way of being in the world? Do you feel your own journey has been supported and what suggestions might you have?

Please contact me to discuss further how you might like to respond and any concerns you might have : [sue.stack@bigpond.com](mailto:sue.stack@bigpond.com)

## Epistemological Reflection

### The problem with models

When engaged in a process of deconstruction there is always the sense that one can be a lot more thorough and vigilant ... in fact it is a never ending process.

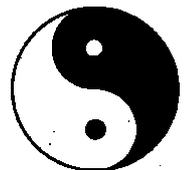
In using spiral dynamics as an analytical tool for deconstructing the curriculum I am using a model which could be criticised, particularly in the way it labels, and its simple principle of evolution of culture. It perhaps oversimplifies the complexity of interactions and the complexity of cultures, but at the same time its contingent insights might enable actions which we can test for effectiveness (though whose version of effectiveness might we be using?)

There are many studies which look at inclusive practices and barriers for students in education - looking at issues of gender, race, indigenous culture, poverty, ability/disability, etc. I have stayed clear of these debates deliberately, choosing to focus on a bigger picture viewpoint - paradigms and cultural memes - though I recognize that these are important aspects in any conversation about an enabling classroom.

I am wary that I am bringing a 'Western cultural' way of thinking to science and curriculum which is quite different to how other nations might experience curriculum. When I first started looking into Holistic Education I thought we needed to do a major overhaul of what we had, and come up with a new vision entirely, incorporating as well as a spiritual paradigm other cultural paradigms (after all Australia is No 2. on the list of multi-cultural societies in the world). But my own efforts in trying to transform the system made me realize that I had two choices - go invent my own school, or work within the current system and be part of a collective journey.

So while colleges are in the process of re-visioning themselves now, it is more in the model of transcend and include. We don't throw out what we have and start from scratch, rather we try to move to more spacious and inclusive views. The problem with this is that our very Western cultural way of learning may be in conflict with other cultures' ways of knowing and being; a case in point being Australia's own indigenous population. So this is an area that concerns me. Thus, although in Chapter 12 I try to come up with an Integral model for science and look at how it might move in perspectival levels, I am wary that I have not taken into account other cultural perspectives. For a truly inclusive model we would need to do this and I hope what I have done will stimulate others to look for possibilities.

My other concern is that my own journey has been one of building deep relationships with others - yet here I am developing an impersonal system model. This is the ethical dilemma, I guess, related to the **greater good** versus **the individual**. How can you have an integral solution? My thought is that Integral Theory provides us with the systemic view - the map of the territory, while Holism provides us with the individual perspective - the experience of the territory itself. We need both in a yin/yang relationship where they interact in a dynamic relationship, each including aspects of the other.



### **The problem with coverage**

I started in my action research with a limited set of literature assisting me as I tried to make meaning of my experiences. As I have moved years later into this reflective writing stage it is clear to me how my experiences interconnect with so many different fields of research, some of which I am just beginning to touch on. My process has opened me up to new fields of knowledge and new

questions which would take a lifetime to research and make meaning of. I am beginning to see what it is I might not know and what might be useful to know. We can only be ready when we are ready. There are books on my shelves partly read waiting for me to have grown enough to understand their significance.

So I am mindful that what I am presenting here is just a partial exploration. Rather than trying to include everything, I have focussed on exploring the contribution that holistic and integral perspectives can make to the debate, trying to create enough depth to get a sense of possibilities and enough breadth to see the shape of the whole environment. I hope that readers coming from other areas will not feel slighted by my oversight, but rather look for ways that our different approaches can interact.

### **The problem with explicating one's stance**

Having gone through several deconstructions of self, both mentally as well as spiritually, I am aware of all that I have left unsaid about my own underpinning values and assumptions, and deconstructive processes, and how these might have shaped the approach I have taken and the meaning I am making. I have done a lot of self-reflective autobiographical writing at different stages over the last 10 years which has helped my own evolutionary process, but much of it is too personal to include. I leave it to the reader to read between the lines and spot my assumptions, neuroses, and strengths. Hopefully with some compassion. Even when I think I understand myself, I discover from what unfolds from my writing, attitudes of mind which previously I have left unexplicated and can now perhaps see them for what they are. But it keeps changing and there is always more to see.

In Chapter 10, *The Ethical Classroom*, I deliberately write with a more authoritative/constructivist tone coming from a value position, thus setting

myself up for the fall in the following chapter, *The Enabling Classroom*. The field of Ethics and values is problematic, as many researchers have found, and one which it seems easier to ignore rather than take a stance.

I have taken a stance and I guess that it is this one; we need to include ethics and values in our teaching. Perhaps we can get around the notion of imposing our values onto others by helping them see the underlying structures that form value systems, so they can dance with freedom in the construction of their own values. But until students have reached the appropriate levels of perspective to do this I think we have no choice but to help their development in context of a set of values that can enable them to reach such perspectives with as healthy a *body-mind-soul-spirit* system as possible.

### **The problem with making conclusions and using anecdotes**

Another problematic aspect of my 'writing as inquiry' is the use of anecdotes. This can be problematic as I have a scientific tendency to want to *conclude* and *generalize* (which is okay if you have many data points). I have to be vigilant with myself to bring a speculative voice rather than a concluding voice. The anecdote does not have this function - it acts as a whole - complete in itself with multiple and rich meaning. When I interpret an anecdote I am applying certain lenses - another person can gain other meanings. A good story/anecdote is like art in that interpretation is open to the reader, enabling multiple meanings. Although my anecdotes include other people they are very much from my point of view and the others involved might remember the situations differently and certainly take away different meanings. I am wary of ascribing to them motivations or feelings they may not have had which is in conflict with the writing of impressionistic stories.

There have been key anecdotes/experiences, some which have lain dormant in my consciousness for years, others which are present, well remembered, which acted as key moments or turning points for me. As I am writing they are surfacing with a sense of urgency and immediacy. A hidden voice waiting to be expressed. Often I write them down and wonder where they are going to lead. Why this story? How is it important? I am letting my subconscious do the work for me in selection, then interpretation begins to emerge.

How I made meaning of them back when they happened is quite different to how I am making meaning of them as I am writing here. As I write I am beginning to see nuances that I hadn't seen before... the anecdote has matured like a rich wine... and it reveals more of myself to me. They definitely become 'teaching stories' similar to the fables of old, with the audience being me.... I hope that they are more generalizable in that they have relevancy for the reader as well.

Behind each of these anecdotes are screeds of student data - video and audio recordings and interviews. These have largely remained invisible in my writing because I am writing more about *my* journey - and that journey occurred because of my assimilation of the data at the time which created praxis. So there is a tension between an agenda where I want to say "This is what my students are capable of and can't we provide an education system that enables this!!!! Ra ra ra!" and needing to substantiate my claims for their learning or for the meaning I am making of their learning.

So sometimes I am mixing purposes and this can be confusing, trying to meet too many competing needs, and possibly losing academic rigor in the process. I think what I am doing is just too big to fit one neat package of epistemology. And in getting involved in anecdotes and meaning, I tend to want to explore that meaning further and possibly lose sight of the bigger picture.

## **The problem with using the *eye of the mind***

It concerns me that as soon as one moves into interpretation, particularly in examining the cultural influences and underpinning values, that one is identifying with the world of ideas and concepts rather than the spiritual dimension. In Chapter 10 on *The Ethical Classroom* I looked at the notion of 1<sup>st</sup> thought, 2<sup>nd</sup> thoughts and 3<sup>rd</sup> thought. '2<sup>nd</sup> thoughts' well and truly explain what I have been doing in the latter part of the chapter on *The Enabling Classroom*. In the earlier part of this chapter, however, I included some 3<sup>rd</sup> thoughts (allowing the universe to speak through me) where I began to see my issue with Lauren as one of soul connection with another.

When I am writing in 3<sup>rd</sup> thought mode my upper chakras (above the crown) are wide open and I am going deeper and deeper into spiritual insight (Wilber's **I** quadrant - 1<sup>st</sup> person perspective.) It is a deconstruction if you like, but in a different dimension. I likened it to a shedding. It is a shedding of judgement which opens to seeing things *as they are*. When I deconstruct using a model I am firmly in the act of judging and analysing. (I am conducting a 3<sup>rd</sup> person analysis of the **WE** and **ITS** quadrant).

The two approaches give very different perspectives and emphases. While the mental process can be coherent, logical, and generalizable, the spiritual one is specific insight associated with *one* relationship, in the *now* and is often paradigm breaking and can therefore seem 'nonsensical' to someone standing in a different paradigm. It is not an 'absolute truth' but a transient truth that acts to move me from where I am now, to another place. Another person meditating on the same issues will get different insights which speak to them. This is because meditation is not so much about revealing the truth of *another* but the truth of *ourselves* and our *I/thou* relationship.

How can one integrate both perspectives or ways of being?

For me, for now, I would like to let go of the models and just be. I know they are just constructs and when I am in my spiritual, heartfelt sense of being they annoy the hell out of me. However, in my overwhelming world of working in a multi-meme culture education system they give me a bit of control.... A way of dealing with complexity. But perhaps if I found a 'Pooh-like' spiritual space in which to operate as a teacher I would be transcending the need to be in control and the need for perfection. Now these spiritual spaces are not alien to me and for periods of time in my past teaching I have lived in them for a while. All the extraneous "stuff" recedes and I am in the moment, in the now, expressing my soul in the presence of another and as a result sending ripples out into the world. Both myself and the world changes ... just as much perhaps as through words, models and logic.

In 2005 I was sometimes in this spiritual space while writing my thesis and it was interesting how self-reflective and insightful it was. It had meaning to me. It spurred lots of threads and inter-connections... there were many aspects to pursue. I was pulling in a huge amount of creative and spiritual energy which enabled me to see in new ways, developing new models and perspectives about science and education. But primarily this process of 'seeing' was very healing for me:

- helping me to see how high my expectations were of myself as a teacher and particularly as a holistic teacher,
- helping me to see my students in new ways (particularly the difficult ones) - with greater compassion, learning to love them and see that inner light within them and thus help me see it in myself.
- forgiving myself for my perceived failures.

However, as an academic work, it was not coherent, it lacked epistemological focus. And why should it have those? Is spirit logical and consistent?

But now I am deliberately writing for an audience... I have an agenda, an end point to get to (which arose from the creative process of 2005). However, the very process of rewriting in a coherent way has enabled me new insights... perhaps a flourishing of aspects of self, a deepening of understanding, a greater sense of meaning and significance... a going back to earlier stages of development and cultural paradigms and integrating them so they rest more at ease within the whole of me. So searching for coherence has some benefits.

### **The issue of wholeness**

I started my story by saying that the driving force for my own evolution was the conflict between science and spirituality and the need to reconcile my differences in the third space of the science classroom. I was searching for wholeness. That journey towards wholeness might be characterised by sub-stages - a search for truth, a search for meaning, a search for purpose, a search for coherence and equity, and a search for integration.

Wholeness is an interesting principle. Hesse (2000) in his story of Siddharta sees wholeness as inclusion of all - the good and the bad, the joy and the suffering, the perfect and the imperfect. It is an *embracing* and *acceptance* of all. In which case I have always been whole, I just haven't brought it into my realization. So have I come full circle or perhaps full spiral? I guess my sense of wholeness is one similar to the expanding balls. I was whole before (a smaller ball) and I am still whole now (the expanded ball) with infinitely bigger balls still possible. Perhaps as I expand I also encourage those around me to expand as well, and they encourage and stimulate me?

Has the very nature of this inquiry been consistent with the principles of wholeness? From the point of view of Wilber I have tried to engage the *eye of the senses, eye of the mind and eye of the spirit* - all dimensions of being - and in doing so have honed these eyes so that they are now capable of seeing more.

I have journeyed around the quadrants - looking into the **IT, ITS, WE** and **I** spaces. I have moved up and down the perspectival levels, as different stages of writing caused me to move into different cognitive frameworks - whether using psychic mind, integral mind, systemic mind, plural mind or self-authoring mind. Sometimes I have become trapped in a perspectival level bringing only those lenses to what I was seeing. Meditation, or being with my classes, playing with a young niece, or working with clay had a way of pulling me out. In revisiting these different perspectival levels I was able to flourish them further and integrate aspects within myself.

How have I incorporated Henderson and Kesson's (2004) holographic model for educational inquiry? This inquiry is based around seven modes or voices and when in interplay together perhaps wholeness results. How successfully have I used these different voices:

**Techne** - *inquiry into one's craft - action research - how to do something.*

This was my key inquiry mode during 1990 to 1999 where I used action research to

### Seven Ways of Knowing

**Techne** – *craft reflection* – how do we do it?

**Poesis** – *soulful attunement of the creative process* – what is whole and beautiful in what we do?

**Praxis** – *critical inquiry* – what are the underlying power structures? Whose needs are being served?

**Dialogos** – *multi-perspectival inquiry* – different voices, enabling dialogue.

**Phronesis** – *practical, deliberate wisdom* - unpacking the reasons behind things.

**Polis** – *public moral inquiry* - what are the underpinning values and ethics?

**Theoria** – *contemplative wisdom* – what is the purpose of education, what does it mean to vision?

Henderson and Kesson (2004)

Fig 11.17

explore the teaching of physics and journalism. I have extended this inquiry mode by using Torbert's (1991) *Action Inquiry* model where one is aware of the value system and the assumptions you are making as you inquire. *Techne* is a very pragmatic mode of inquiry where one is interested in how to improve one's craft and is focussed on those immediate tools which support this venture... which can explain some of my tunnel vision when engaged in it.

**Poesis** -*How can we bring in a sense of beauty (love, passion, receptiveness, soulfulness, fulfilment) to what we do? Does it create a sense of profound order, harmony or wellbeing for the participants? How does it enable depth and meaning and movement from perceived parts to imaginative whole? How does it foster perceptiveness, imagination, creativity and intuitive self?*

The question of wholeness was the driving question for my own journey... How to perceive my subject as a whole, how to perceive my students from a holistic perspective, how to be holistic and soulful in my expression of self as a teacher and as a researcher.

In trying to include a spiritual paradigm in my teaching of physics I was essentially asking how I could make my teaching more soulful, creative, aesthetic, connective, fulfilling. How could I be more fully present with my students and help them to be present?

I was concerned about what it meant to care for my students and foster a caring classroom, emphasising 'warm heart' as much as 'clear mind'. These are questions which stem from the questions *What does it mean to educate for flourishing?* and *How is our notion of flourishing limited by the paradigm we are in?* What is missing perhaps from this inquiry mode is the developmental, evolutionary notion of soul expression.

**Praxis** - *critical inquiry - what are the explicit and implicit power relationships between teacher and student? What are the underpinning curriculum metaphors and who do they serve? What purpose does our assessment serve and what does it value? How are we valuing what students are gaining?*

I have used spiral dynamics and curriculum metaphors to explore the underpinning values inherent in the Tasmanian Education system which is only a very partial critical theory analysis. I use them to explore whether some of the tensions I have experienced in my teaching can be explained by implicit structures in our curriculum frameworks. To be in a space which is mindful of all the implicit structures and issues can inadvertently put up a barrier between present moment experience and another, so I believe this needs to be used with caution.

**Dialogous** - *gaining other perspectives - voices of the students, parents, colleagues, wider community, scientists.*

A key to my study of exploring what it meant to be a holistic teacher was gaining student feedback; finding out about their perspectives about what I was trialling, as well as coming to know and see them and their culture. In seeking this it was important for me to develop a way of being that was open to criticism and was non-judgmental, thus enabling my students to express themselves fully and reflectively.

However, now in the writing of the study I have moved to mono-voice (mine). I am crafting an argument which uses their carefully selected stories and voices and contextualises them in such ways that they might not agree or even understand my interpretations.

In my writing I have used dialogue to explore different perspectives, and some of the dialogues between my curriculum planners are often based on real conversations I have had with colleagues, but even so the viewpoints expressed should not be seen as representative of other viewpoints in Tasmanian education.

So this *written* study does not really represent a true *dialogos* inquiry where a group of people representing different viewpoints come together to tease out meaning based on a group understanding. But perhaps it is more consistent with *open space technology* - where people come together, sharing their stories and perspectives. This affects each person in a unique way. They then leave without necessarily coming to any consensus or solutions but with a desire to integrate the new understandings within their own contexts.

**Phronesis** - *deliberate collaborative inquiry. Exploring deeper - suspending initial judgement in order to understand the reasons behind actions and perceptions. Changing one's perceptions, finding courses of action based on strengthened awareness, embodied wise judgement.*

In being part of a collaborative action research project at a university of physics department (see Appendix 3 for details) I was able to benefit from the group process which enabled mediation of my thinking and ideas. In being able to be a fly on the wall in another institution enabled me to gain another perspective; I could see my own actions with more distance and clarity, questioning long-time habits, assumptions and values.

The inquiry process forced our group to look deeply into the reasons behind what we do as teachers and scientists, and to deeply unpack the

students' learning experiences and their needs. It forced me to look for the deeper reasons behind barriers to transforming teaching practice. As a result all of us were taken on a transformative journey leading to change in perceptions about students, each other and the teaching process.

Did it foster greater wisdom or moral awareness? Certainly it was important for me in developing greater empathy for my colleagues, despite our differences in paradigms and in helping me to understand that we need to support everyone, no matter how ill-fitting they might be within the current or projected system. That the process of curriculum reform can act to marginalise some as it empowers others.

**Polis** - *ethical issues. How are my values in conflict with the students? How much do I disclose? Where do they intersect and how can we pull together disparate values?*

My spiral dynamic and integral analysis has been an effort to understand values as a result of different cultural memes as well as developmental needs. In looking for an Integral solution I am trying to find a system which might facilitate expression of the whole system as it needs to be expressed. Yet that is an analytical approach and can act to create barriers with another.

The key to my own journey has been one of finding appropriate ways of being with my students - balancing authenticity and vulnerability with my duty of care as a teacher... building self-capacity with meditation and mindful practice. Realizing perhaps that ethical tactfulness is something that evolves while at the same time being contextual.

**Theoria** - *what is the purpose of education? What is the world we want to create? How can we vision together?*

The question of the purpose of education has been a problematic one for me with many conflicting possibilities which I have struggled to explicate, understand and integrate throughout my study. I am doing this through processes of deconstructing, storying, imagining, visioning and meditating. As my capacity grows, so do the possibilities I can see and the more aware I am of how I might be limiting my own vision.

I am not too sure whether I am satisfied that I have found a sense of ease with this question or have found my way into a vision - rather that for now I accept the tensions. But I hope that my continuing to ask this question, and my struggles with it through my work, assists others envisioning a future for the world, for education and for science.

**What is missing with these modes of inquiry?**

I believe that there needs to be another mode or dimension to inquiry which goes beyond concepts and questions... which embraces the spiritual dimension... sits quietly in the infinite now. Otherwise these inquiry modes are *wholistic* rather than *holistic*.

Ok. So taking my own advice I have just done a little meditation. This is the insight that has emerged, for what its worth...

We need to be careful of following a set of questions (from different perspectives) and thinking that this constitutes a multi-mode inquiry. Rather, as we adopt an inquiry mode we need to live in that space. It means moving into the intent and full experience of the mode and then allowing one's own questions

and seeking to emerge. The more unfamiliar we are with the mode the more practice we need in accessing its state of being and mindfulness. The space will actually change and evolve as we use it along with our own growth. The entry into a mode might require very different stimulation.

It is interesting that when I was engaged in writing Chapter 10 - *The Ethical Classroom* I was dealing with ethical issues in my current journalism class requiring me to be very mindful of my own values and agenda in helping students explore theirs. In contrast, in writing Chapter 6 - *The Meaningful Classroom* I was expressing my own creativity and bounciness with inspiring and imaginative sculptural forms. Where am I now as I bring an epistemological eye to what I am doing?

Perhaps inadvertently I have been involved in a holistic inquiry - where I have experienced different spaces to see different views - but what might it mean for these to truly integrate into a whole (including the spiritual dimension)? Perhaps the integration lies in the living and being of the person involved in the inquiry. It is seen, not in my writing, nor thinking, but in the person I am today, this moment.

Sitting, still in my bathrobe (even though it is noon - too engaged with my thoughts to spare time to get dressed), wet hair from the shower, typing away, with a little smile on my face as I realize how incongruous it all is. Time to go and live! Time to express my fullness of being!

Ok. Yes. Let me go put the clothes in the dryer.



*The Grande  
Passion*