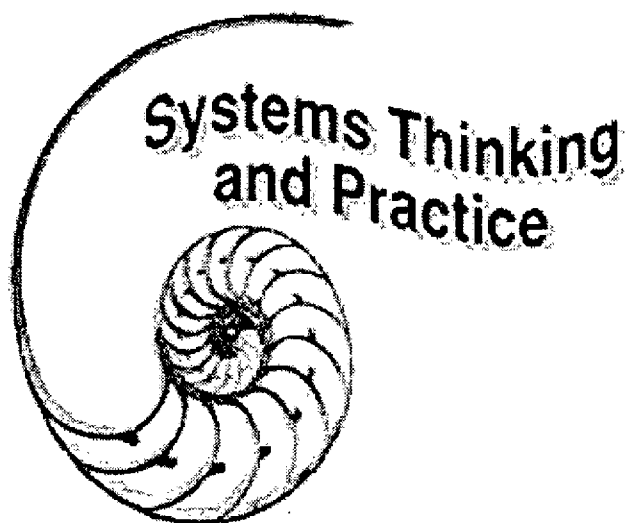


Environmental Responsibility through Social Construct Analysis: Insights from a Twenty Year Experiment

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Maurice Strong's UN environment conference in Stockholm, 1972, provided international legitimacy for environmental concerns. From that springboard a number of Australian universities established the nation's first environmental studies programs, all Masters degrees. Ten years later Monash University made its program's first and only substantial transformation, a formal obligatory ('core') introduction to transdisciplinary thinking. This special section of the *AJEE* offers six examples of student writings from that attempt. They are drawn from the work of the year 1999 students who undertook part 1 of the three part core subject *Systems Thinking and Practice*.

In 1979, seven years after its commencement, an Ad Hoc Committee to Review the Master of Environmental Science Program at Monash University proposed to 'integrate the diversity of subjects that comprise the core' and to minimise the 'dangers of superficiality ... and narrow specialisation'. No further guidance was given as to what this meant nor how it was to be done. Nevertheless, from this seed began the intellectual transformation of the program. No additional funding was provided. The project was simply supported by the good will of staff from various faculties. To date a thousand students have wrestled with the new program in one form or another.

The transformation was expected to generate a reflexive context or complement to the current dualistic or *silo-based* approach to making sense of reality. It was reasoned that such a comprehensive intellectual basis would provide in turn for meta-responsible action. This meant action that would be *optimally* circumspect. Optimal to the extent that the consequences of circumspection would themselves be recognised and would not disempower the possibility of action. (See e.g. Fisher 1999, 2000a.)

In the understanding that intellectual frameworks underpin our *environmental problematic* (as The Club of Rome called the suite of issues we are concerned with in this journal) the course set out to:

a) provide a compact analysis of the intellectual frameworks

behind Western thinking, and especially of science, and then

b) introduce the notion and everyday practice of social construction with special emphasis on General System Theory (type 2, see e.g. Rittel 1982).

In addition to the new capacity to make a wider sense of the world, the effort was intended to assist graduate students to make a more comprehensive sense of the diverse disciplinary insights they were to acquire in their parallel (and prior) disciplinary studies and to pull them together in a way otherwise inaccessible to them. We were developing a 'new sense' for them which required, among other things, that they recognised how they were part of the new sense they were acquiring or, more precisely, how they were *making* it!

The proponents of the new direction were two unusual Monash academics, a geographer/anthropologist, Prof. Bill Clarke and the radical economist Frank Little. In the first agonised years of the course, these two provided the substantive core of a course that generated as much confusion as insight. Inevitably a few students did make sense of the material the four of us were grappling to render coherent, and they proposed numerous improvements. The fourth staff member was a mechanical engineer, Bruce Kuhnell, involved in machine condition monitoring with a parallel interest in world systems modelling of the kind made famous by the Club of Rome (Meadows 1972).

By far the most important improvement came with the arrival of radical physicist, philosopher and green political activist Alan Roberts. For this the course owes a debt to one of its early students, another radical Monash physicist and green political activist, Don Hutton. Roberts was probably the only staff member in the university at the time with a major published work in the area, viz. *The Self-Managing Environment* (1979). His strong grasp of the area, along with a coherent, worldly and yet charismatic teaching style quickly transformed the two-part course into something most students could at least cope with and at times even enjoy. By the end of the 1980s Roberts retired and the course went on to its current three-part core status with one lecturer throughout.

To the proponents of the new course, two notions were primary. Firstly, in order to 'see' a discipline, a measure or a problem, we had to find a way to stand outside it. To do this we had to find some structures that would enable us to take that step outside; to make sense of 'outside' or to create *context* for the discipline, measure or problem. Secondly, we had to find a coherent body of knowledge to legitimate us taking our steps outside. Part of that latter task involved realising that there was a constituency in the community for teaching context - or *meta*-studies - which hitherto had been largely unrecognised and so was, in principle, unteachable. We were, in other words, moving into the unoccupied domains of the pedagogy of such things as parenthood and democratic practice; things just assumed rather than formally taught. We were doing what Melbourne's RMIT University set out to do with its brave and much more ambitious, but ill-fated, Context Curriculum.

Our erstwhile intellectual antecedents lay in philosophy, anthropology, linguistics, political science etc. and the professions that actively practiced aspects of these insights such as education and the likes of social work, psychotherapies and the twentieth century metadomains of marketing, public relations and management.

It is relevant to this discussion to recognise that RMIT's Context Curriculum was introduced into all that university's undergraduate curricula. It comprised a broad range of context subjects but no core subject that taught the 'context of context'. Thus, no attempt was ever made to make sense of the multitude of multidisciplinary studies offered to students. It simply required students and staff to accept them and, at best, to criticise their contents. In part this is why many staff passively (and even actively) undermined the program. They did not have the means to make sense of it in their own professional contexts.

In the early years appropriate literature was hard to come by. While History, Philosophy & Sociology of Science was amassing a good literature, much of it was inaccessible to the Monash students; it was too advanced. It was also not general enough, nor practical enough. Similarly, the General Systems literature was in the main too theoretical and not dedicated to people who would be struggling in *the real world* to make that world more sustainable. We had to satisfy ourselves with a grab-bag of literature from various disciplines. From Biology there was Conrad Waddington (1977) and James Greer Miller (1978), from Anthropology Gregory Bateson (1973 & 1980) and from Philosophy the likes of the great Alfred North Whitehead (1985, original: 1926) and C.S. Lewis (1999, original: 1943). For the student with time and persistence, these works offered a lot but they were heavy going. By the late 1980s this situation had begun to improve and today there is a range of accessible and appropriate texts as listed below.

- a) On Systems and Social Construction—to the late 1980s:
Open Systems Group, 1981, *Systems Behaviour*, 3rd Ed., Harper & Row, London.

- to the late 1990s:

Maturana, H. & Varela, F., 1987, *The Tree of Knowledge: The Biological Roots of Human Understanding*, Shambhala, Boston.

- from 1998:

Capra, F., 1997, *The Web of Life: A New Synthesis of Mind and Matter*, Harper Collins, London.

[This book is largely based on the preceding work.]

- b) On Science:

Collins, H., & Pinch, T., 1998, *The Golem: What You Should Know About Science*, 2nd Ed., Canto, London.

Also:

Senge, P. 1992, *The Fifth Discipline. The Art & Practice of the Learning Organisation*, Random, N.Y.

Searle, J. 1999, *Mind, Language & Society. Doing Philosophy in the Real World*, Weidenfeld, N.Y.

Levins, R. & Lewontin, R. 1985, *The Dialectical Biologist*, Harvard U.P., Cambridge, Mass.

Environmental science as construed here, requires students to accept that:

- 1 humans work inside social constructs;
- 2 the social constructs we work inside can be known; and
- 3 we can act within and with our formative social constructs to transform the expectations we bring to our interactions with the natural world.

Moreover, we can turn around and be critically aware that the constructs we have used are themselves constructed and fraught with the limitations of interpretation. In other words that: *Responsible action of the kind we are aspiring to here, involves being responsible for the way we are responsible.*

The intellectual exercise associated with points 1 and 2 are well within the capacity of graduate students but, 3 is much more difficult. Without explicit experience in applying the ideas, students reach their research project and have few intellectual resources remaining to apply the ideas to critical selection and assessment of research method, let alone to wider assessments of the social constructions associated with their research projects. In other words, by the time they arrive at their research projects they have forgotten the generalised implications of their early training in social construct analysis and do not apply it.

Research projects in the Masters program are commissioned by organisations outside the University and all are interdisciplinary team based (3-5 students). The coursework Masters involves work submitted in consultant-type team reports (no formal theses). The research Masters includes both the consultant-type reports and research folios submitted by each individual student. The research folios are the equivalent of minor theses.

For the first decade there were only two parts to the core

Systems Thinking and Practice (STP) program. These were the introductory, theoretical part and its reprise in the team research project which runs as a part-time component throughout the Masters degrees (this is now STP3). Therefore, as much practical experience as possible was built into Part 1 (see Table 1).

Table 1: Simplified structure of 2 year fulltime progression to M.Env.Sc. by coursework

(For details of the Masters by research, Grad.Dip. & Masters Qual. by research and of part-time arrangements, contact Monash University. A streamlined 72p Masters by coursework is in preparation for 2003.)

Year 1 [48 credit points] [all subjects 6 credit points]	Year 2 [48 credit points] [all electives 6 credit points]
Semester 1	Semester 1
STP 1	3 x Electives
Introduction to Team	Team Research Project (<i>incl.</i> Research
2 x Electives	STP 3)
Semester 2	Semester 2
STP 2 (elective)	2 x Electives
3x Electives (e.g. Internship)	Team Research Project (<i>incl.</i> STP 3)

STP 1 begins by requiring students to select and report on one of a range of simple but confronting practical exercises such as commuting for a week without a car, not bathing for a week, picking up rubbish in a public place etc. While the early assessment tasks are theoretical the latter and larger tasks require students to assess social constructs underpinning a range of mundane issues including university assessment itself and professional accreditation.

The reprise in the research project (now Part 3) involves revisiting the ideas in Part 1 by requiring students to build into their research reports an analysis of social constructions associated with some aspect of their research project. The sections devoted to elaboration of social constructs are chosen to suit the needs of the organisations which sponsor the research projects. In one case this may involve analysis of research method while in another it may involve a systems/social construct analysis of a particular component of the study of direct relevance to the client. It concludes with a brief study of the place of personal and social transcendence, or spirituality, in the search for sustainability. This last section, and with it the degree as a whole, concludes with a low-key seminar in which students elaborate their own *search for meaning* in the wider contexts of the inadequacies of current social constructs to sustainability (in connection with *adequacy*, see e.g. Schumacher 1976). Prescribed text for STP 3 include:

Part 1: Revisiting Systems/Social Constructions

Thompson, M., Warburton, M. & Hatley, T. 1986, *Uncertainty on a Himalayan Scale*, Ethnographica, London. (This work is a comprehensive reflection upon the extensive analyses

of a typical, if large and complex or 'wicked' environmental issue.)

Part 2: Transcendence

Wilber, K.. 2000, *A Theory of Everything: An integral vision for business, politics, science and spirituality*, Shambhala, Boston;

or books such as:

Macy, J. 1991, *Mutual Causality in Buddhism & General Systems Theory: The Dharma of Natural Systems*, S.U.N.Y., Albany.

Finally, to overcome the problem of lacking practice, STP 2 was introduced. It is a semester long social-change task. The prescribed text for STP 2 is Labonte, R., 1997, *Power, Participation & Partnerships for Health Promotion*, VicHealth, Carlton. Two conventional seminars present aspects of marketing and communications relevant to micro-social change. Otherwise the formal sessions are small seminars in which students pool their resources along with the experience of the lecturer to facilitate each student's progress. The projects undertaken vary in scope and involve small numbers of each student's co-workers or co-householders. In perhaps half the class the projects initiate action that persists well beyond the life of the class and in many cases indefinitely. Most tasks are 'environmental' in the most direct sense, transforming the way groups of people interact with their biophysical environments viz. recycling, energy and water conservation in homes and workplaces, street- and community-scape changes, school and business behaviours and initiatives. At present the course has only elective status and therefore attracts only about half those attending Part 1 which usually begins with about 40 students.

Where students are keen to extend the work commenced in this subject, an opportunity exists in the subject called the Environmental Internship. It enables pursuit of an initiative in the public domain under supervision of a member of the Graduate School's staff.

Part 2 is now the most exciting and rewarding part of the three part series for both students and the lecturer. It offers students a real opportunity to 'change the world' and in doing so has resulted in numerous small but exciting innovations. In 2001 one of these was the transformation of the way McDonald's Australia handles its waste. This initiative commenced in a suburban Melbourne franchise as the initiative of a young middle-manager undertaking STP 2.

While the initiatives undertaken in STP 2 would be interesting to reflect upon, students do not make standard essay type responses in that subject. Therefore the papers that follow this outline are responses to the essay topics that conclude Part 1 of the course, in this case Part 1 of 1999.

Each year students are offered an extensive list of public issues current to the time of writing. They choose from a list that includes guided topics of their own choice and they are asked to tease out systems/social constructs they see associated with

their chosen topic. Typical examples taken from the 2001 list of final essay topics were:

Re: Science and measurement

Assume that you are a scientist involved in communicating your science in such a way that your audience will gain a critical understanding of it. Critical understanding meaning an awareness to its social (inter- and trans-disciplinary) determinants as well as its disciplinary determinants.

Then: a) either generally or by using a discipline familiar to you, describe what science and a 'critical understanding' of it means to you, and

b) suggest, via this understanding, how you would work to allay the fears of fellow scientists (generally or in your chosen field) that such criticalscience might undermine the basis of their work and of their science.

N.B. i) you cannot gain more than a Distinction if you do not attempt (b)!

ii) the 'science wars' debate - relevant to this issue and kicked along by (in)famous physicist Alan Sokal in the mid-1990s - has occupied hectares of print, some of which is available from FF.

Re: General (current affairs) topics

On the next pages are a number of newspaper articles/ads reflecting current issues and the debates they are generating. Take one or other of these issues and discuss:

- social constructions that enable these issues to arise as issues in the public domain
- social constructions that you believe are of concern, along with,
- social constructions that give rise to (your) concern in this context and
- propose ways to dissolve the constructions of concern and/or the feelings of concern themselves. Note the difference between these two and how the 'feelings of concern' are 'used' to manipulate us.

Some interesting references on 'spin doctoring': • S. Ewen: *PR!*; • J. Stauber & S. Rampton: *Trust Us We're Experts*; • N. Klein: *No Logo*; • S. Beder: *Global Spin* not to mention Jane Cadzow's piece 'The hidden persuaders' in *Good Weekend*, May 26, 2001 and in general, the Canadian periodical *Adbusters*.

N.B. You are not being asked for an exhaustive list of constructions, just a development of your selections along with some justification of them. Brief guiding notes are provided with each topic.

A couple of the general topics were contemporary parliamentary inquiries. Students wrote and submitted their views to e.g. the Senate inquiry into *Australia's Urban Water Management*. Two of these are now being rewritten by their authors as papers for submission to journals.

It should be noted that both systems and social constructivist ideas have been subjected to extensive criticism and reinterpretation. Moreover, the very popularity of social construction in postmodern circles has produced a backlash which risks cutting our noses off to spite our faces. Nevertheless, the criticisms are worth reading precisely because *constructs of any kind are constructed* and particular interpretations do become uncritically accepted vogues. Therefore all the critical assistance we are able to hear before acting on a given interpretation enhances the flexibility with which we make our new constructions and therefore enhances the ways we construct our world (see, Lilienfeld, *Hacking* 2000, Suchting 1992, and Fisher, various.)

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