Learning to appreciate learning systems for environmental decision making – a 'work-in-progress' perspective

Journal Item

Learning to appreciate learning systems for environmental decision making – a 'work-in-progress' perspective.

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This paper explains how and why the author engaged with the work of Sir Geoffrey Vickers and found it highly relevant to researching learning systems for environmental decision making at the start of the 21st Century. Key areas of Vickers' work reviewed are his ethical concerns that relate to what we refer to today as ecological sustainability; his insights into systems thinking; his concept of an appreciative system and his distinctions concerning learning.

Keywords: learning systems; appreciation; Vickers; environmental decision making

INTRODUCTION

Geoffrey Vickers shared many insights through his writing. He declared that his own interest lay 'chiefly in social and institutional relations' and in what he referred to as 'the ecology of ideas' (Vickers, 1978 p.79). In striving to make sense of his many experiences he analysed situations ranging from planetary through societal and organisational to individual levels. He developed concepts, such as 'the appreciative system' and he focused on history and culture to look to the future. As an academic in the Open University's Systems Discipline I became aware of Vickers' work through my colleagues. He was much quoted in the development of our courses and his picture looked down on our many meetings where we, in Vickers' terms, tried to get out of our own traps in thinking and to **appreciate** situations, not always to act.

Some of my key interests are in learning systems and in environmental decision making. It was while participating in the process around the United Nations Conference on Environment and Development in the early 1990s that I became aware that some of Vickers' work was highly relevant to education for sustainable development, our focus at that time. I read Vickers' paper called 'Education in Systems Thinking' (Vickers, 1980). In it he argued that systems thinking is needed in nearly all situations and he advocated its teaching in schools. But it was the way he explained how this could be done, by using the

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water cycle, traffic in towns and the school and its context as many kinds of system, that I found both appealing and relevant. I found both his explanation of inter-relationships and boundary judgements and his questioning of the status quo regarding education in schools, exceptionally clear and challenging.

Over time I read more of Vickers' work that I found both insightful and useful: insightful into what had occurred or was needed and why, and useful because he provided some conceptual tools and gave plenty of examples of what he meant.

In this paper I first explain some of the challenges of my research, how I needed conceptual tools to explore and explain some situations and how my search for these tools led me to Geoffrey Vickers' work. I then go on to review some of Vickers' work, indicating what I have found particularly relevant.

THREE NEEDS FOR CONCEPTUAL TOOLS IN RESEARCHING LEARNING SYSTEMS FOR ENVIRONMENTAL DECISION MAKING

My research

I came to academia through teaching and management. As I moved on in my career I also developed my research profile and as part of this process, in 2001, I registered to do my own doctoral research. I am researching learning systems and communities of practice (CoPs) for environmental decision making in some UK and wider European contexts. Examples of my research questions include:

- What and who most support individuals' environmental decision making?
- What is the nature of learning systems for environmental decision making?

By environmental decision making I mean including environmental considerations alongside other factors in decision making. By environment I mean that which surrounds, affects and is affected by an entity, whether group or individual. (I include ecological aspects in my definition of environment alongside other aspects but I stress here the ecological to make the link with Vickers' work on ecological thinking.)

My empirical work is organised as three inquiries relating to my experience. The first inquiry is in the context of the Open University Masters' level course Environmental decision making: a systems approach, among people who are directly involved in or facilitating environmental decision making, mainly in the UK. My second inquiry is project-based, among people who have been involved in two European Union funded projects, SLIM (SLIM, 2001-2004) and LEARNing (LEARNing, 2003-2005) and who tend to support environmental decision making indirectly. My third inquiry, yet to come, will be at a meta-level, considering some of the learning systems and CoPs that have emerged from the other two inquiries.

Theoretically I am building on traditions of learning systems, environmental decision making, social learning and Communities of Practice and methodologically I am using a range of systems approaches, including some aspects of appreciative systems. I have written more about my research approach elsewhere (Blackmore and Morris, 2001; Blackmore, 2002; Blackmore, 2004). It is work-in-progress, so I will not discuss my findings here, but I will explain why I have found Geoffrey Vickers' work helpful.

Three needs

By 2003, after I had completed a pilot study for my research, I had three particular needs.

First, how could I conceptualise my various inquiries and link them together as one? While I was thinking of them as one inquiry with different stages and focuses, there were many events and changes occurring in the environments of these inquiries. I was using a framework for environmental decision making, developed with colleagues, to conceptualise my overall inquiry but I felt that some of the links I had made were artificial. For instance, even within part of an inquiry that related to a single project, the SLIM project (SLIM, 2004), I had encountered many different and fast-changing decision situations of participants. These situations were linked by events such as changes in legislation, flooding or diffuse pollution but were working at many different levels – local, national, international – with different timeframes for deliberating and acting. I was aware that I needed to choose how I focused my research but also felt a need to re-conceptualise my methodology.

Second, what position would I take on what constituted evidence of learning? Where did boundaries lie? Was I just interested in learning that led to action? Or in other kinds of learning also? Theoretically, I had been influenced by Etienne Wenger's concept of 'learning as practice'. While developing a social theory of learning Wenger found that the claims processors and managers at the focus of his research rarely talked about their job as learning.

> They talked about change, new ideas, about performance levels, about the old days. The concept of learning is not absent from the claims processing office, but it is used mainly for trainees.... One reason they do not think of their job as learning is that what they learn is their practice.... What they learn is not a static subject matter but the very process of being engaged in, and participating in developing, an ongoing practice. (Wenger, 1999 p. 95)

Hence, in my research interviews I was focusing not just on learning, but on a broader notion and trying to immerse myself in individuals' practices to understand their experience – their contexts for environmental decision making, roles and activities, what had changed, what they had found surprising, what and who were valued in the decision-making processes and what comparisons were made and why. I was conscious both of the language people used to describe their learning, and the boundaries they placed around it. Some of

the learning important to individuals' environmental decision making in the longer term had not necessarily been recognised as significant at the time, only later.
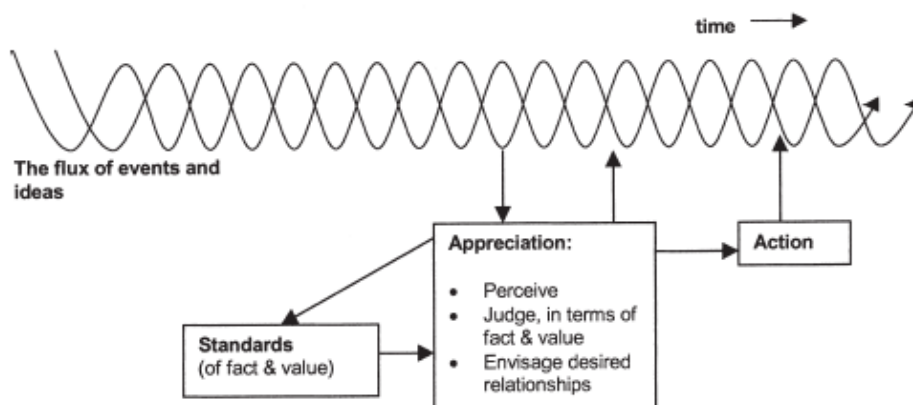
Brockbank and McGill (1998) commented that there is little agreement among researchers about what constitutes learning. A wide range of theories of learning have been developed including cognitive, behaviourist, social, organisational, activity, experiential and situated (Wenger, 1999; Ison *et al*., 2000) and have been used by practitioners from many disciplines. However, claims have been made that learning is still under-theorised in some sectors e.g. in higher education (Brockbank and McGill, 1998; Ison *et al*., 2000) and that there is an urgent need for improving discourse about learning capability in a variety of fields and sectors (Wenger, 2004). Hence it is perhaps not surprising that I was experiencing this aspect of my research as complex, but I felt I needed to develop a clearer theoretical position before the next stage of my inquiries.

My third need concerned action. What constituted action in environmental decision making? What was the relationship between action and learning? I recognised that answers to these questions depended on how learning and action were theorised but I had become aware that my interviewees placed different boundaries around action. In the context of addressing environmental issues, one person's action (e.g. conferences, discussion or negotiations) appeared to be another's inaction (*'too many conferences....all talk and no action!'*) I needed conceptual tools to explore and explain some of these boundary issues.

What led me to Vickers' work?

I read widely about inquiry processes, to find out how others had addressed the issues I was struggling with. One paper I found particularly meaningful was Peter Checkland and Alejandro Casar's (1986) review and interpretation of Geoffrey Vickers' work on appreciative systems that they had brought together with their own work on soft systems methodology. What attracted me to it was the way that results of processes of appreciation (perceiving, judging and envisaging desired relationships) **and** resultant action were added to and drawn from the *Lebenswelt* day-to-day experienced life, as a flux of interacting events and ideas. To me, here was a way of thinking of how all the researching processes I'd been involved in with respect to learning systems for environmental decision making did contribute to something and move on, mix with other events and ideas and could later be drawn on. I found I could readily identify elements in my inquiries that could be thought of as 'appreciation', 'standards', 'action' and 'the flux of events and ideas' which the authors had drawn out from Geoffrey Vickers' work. I have illustrated this in Figure 1 by listing some of these elements beneath Checkland and Casar's model.

I also found the links between the elements in Figure 1 meaningful as they indicate a dynamic process. I intend to use Checkland and Casar's model as a heuristic device for communicating my experiences and different strands of inquiry, and to help conceptualise and structure my future inquiries.

The diagram shows "time →" with a wave-like flux labeled "The flux of events and ideas" flowing into boxes:

- **Appreciation:**
  - Perceive
  - Judge, in terms of fact & value
  - Envisage desired relationships
- **Standards** (of fact & value)
- **Action**

Examples of where standards are included	Examples of appreciative processes	Examples of action
Environmental standards, regulations & legislation	Round tables	Reducing polluting emissions to air and water
Environmental statements & reports	Audit inquiry	New constructions – e.g. roads, buildings, dams.
Agenda 21	Public inquiry meetings	Tree felling and planting
Sustainable development indicators	Stakeholder dialogue	Gravel extraction
Declarations and memoranda of understanding	Meetings and conferences	Recycling of waste
Strategies and plans – e.g. for river basin management and biodiversity	Identifying, predicting and assessing environmental and social effects of policies, plans, projects and proposals	Grant aid
Codes of good practice	Reviews	Prosecution

Figure 1: The structure of an appreciative system expanded, with examples (adapted from Checkland and Casar, 1986 and Checkland, 1994).

I was aware that others also had built on Vickers' work. One popular tradition is 'appreciative inquiry' (AI) which appeared to me to have been developed through a large international community of practice. Evidence of this activity appeared as newsletters, conferences and publications. (Cooperrider & Srivastva, 1987; Gotches & Ludema, 1995; Murrell, 1999; Bushe, 1999; Carnegie *et al*., 2000; AI Practitioner, 2003; Walker and Carr-Stewart, 2004; AI Commons website, 2004; 2nd international AI conference, 2004).

David Cooperrider and Suresh Srivastva developed appreciative inquiry in the mid-1980s building on traditions of social constructionism, action research and positive mental imagery as well as appreciative systems (Cooperrider and Srivastva, 1987). While I identified with three of these traditions, I did not particularly identify with positive mental imagery. I think in part because I associated it with ideas of learning from good practice and I agreed with the view expressed lucidly by Snowden (2003) that we often learn as much from failure as from success. Many of the results of appreciative inquiry appear to be

very impressive and I have a lot more to learn about how it is used in practice. But I found few direct links to Vickers' work in AI literature and I specifically wanted to find out more about appreciative systems, which led me back to Geoffrey Vickers' original work rather than continuing at that stage to see how others had used it.

SOME INSIGHTS AND CONCEPTS DRAWN FROM GEOFFREY VICKERS' WORK

I started my in-depth exploration of Vickers' work with my questions around conceptualising and structuring inquiry, learning and action from my three needs, spelt out in section 2. I was also aware that Vickers had written about systems thinking, environmental issues and decision making, all of them relevant to my work.

In what follows I have selected insights and concepts I found to be most relevant to my current work. These fall into three categories:

(i)   Ecological and systemic thinking
(ii)   Appreciation and appreciative systems
(iii)   Learning, social learning and learning systems.

I have quoted Vickers extensively because I feel that summarising what he said in my own words does not do credit to the depth and quality of the insights. In quoting words out of context I may inadvertently have changed their meaning but I have quoted them to illustrate that some of these insights can apply to different contexts and times.

Ecological and systemic thinking

Systems and systems thinking

A great deal of Geoffrey Vickers' writing was about systems and systems thinking.

> Systems is a word of very wide application. It is used amongst other fields in astronomy, physics, biology, ecology, political science, economics and sociology. It can even be applied to those systems of concepts and values through which we see all others (Vickers, 1978 p.79).

> We can distinguish systems made up of a whole hierarchy of over-lapping sub-systems, each exemplifying a different kind of order (Vickers, 1972 p.91).

> I do not think it too much to hope that an understanding of systemic relations may bring us a better understanding of our limitations and even our possibilities (Vickers, 1978 p.81).

At the time of writing this paper, systems is still a word used in many different fields. I would now add health, sustainable development and knowledge management to the fields Vickers' selected. An understanding of systemic relations also appears to be increasingly

valued by people working in many different professions ranging from public policy to education (Chapman, 2002; WWF, Scotland 2004)

I think the following short extract, taken from Geoffrey Vickers' paper on Education in Systems thinking (1980), illustrates well how he thought of systems:

> A school is a physical system which even small children can represent by a map. Its buildings are spatially related to each other. It has an apparent perimeter, but this dissolves on examination. For it is intersected by sewers, water mains, power lines, roads, each of which makes it part of some other system. To the school these are its physical support sub-systems. But to those who manage these supporting systems, the school is a component, making demands but also subject to demands, such as for example the demand to economize water in a drought. It may not readily occur to a child or even to a teacher that for other professionals as estimable as they the school may properly be regarded as a generator of sewage. ...A school is far more than a physical system, supported by other physical systems. It is also an educational system, a social system, a financial system, an administrative system, a cultural system, all with an historical dimension (Vickers, 1980 p.5).

I have found the way that Vickers' used this example, to show that systems boundary judgments are dependent on purpose, to be applicable to many current situations relating to people and their natural and built environments.

Vickers also expressed views on deficiencies of education in instilling a systemic view:

> But this shared world is not simply a discovered world. It is a social artifact which each of us can in some degree confirm or change. Our educative system today is, I believe, gravely deficient in two respects. It fails to instill, from an early age, a sense of relatedness of things, a systemic view such as is currently exemplified by the accepted need for more ecological thinking....It fails also to instill in us from an early age a sense of our power and responsibility as architects of the conceptual world in which we live (Vickers, 1987 p.117).

Others still make this sort of observation today and have attempted to help address this deficiency (WWF, Scotland 2004). The Open University Systems Department has also made a contribution in this respect and since the 1970s was among those inspired by Vickers' work on systems and included and built on his ideas in Open University courses (e.g. Open University, 1984, 1991, 1999a, 2000-2004)

Vickers wrote about systems in many different contexts ranging from the nation state, education and institutions to what he called human-ecological systems. He also wrote extensively about activities such as policy making, decision making and modelling and used examples from a wide range of situations and levels (Vickers, 1965, 1978, 1987). He considered the nature of personal responsibility (Vickers, 1978) and how that related to being a member of organisations where there may be conflicting demands.

Sustainable development and the ecological view

Language and ideas have evolved since Vickers' time. But he explored much that remains relevant today, in my view very lucidly. For instance he discussed issues of population, ecology, pollution and wastes (Vickers, 1972 p.29-42). Vickers does not refer specifically to the concept of 'sustainable development' as his writing preceded events such as the 1987 Brundtland Commission and the 1992 United Nations Conference on Environment and Development which popularised the term, but he was clearly responding to some of the same challenges as these events. Vickers wrote repeatedly about sustainability albeit in different language. For instance, 'to sustain' means to keep going, a topic discussed in the following example

> Hardly anyone still has direct access to drinking water, few have access to water of any kind. Between the majestic water cycle and their basic individual needs has been interposed a man-made system of immense complexity......Their consumption has risen astronomically; yet they depend even for life's minimum needs on the grace and favour of their fellow man. ....How does the system keep going? Why should it keep going? What does it demand of us to keep going – of us as consumers as well as producers? In fact it isn't keeping going very well. Both internationally and intranationally it is showing signs of gross instability, perhaps breakdown..... (Vickers, 1980 p.3)

The discourse of the early 1990s around sustainable development was concerned with bringing environmental, economic and social factors together. Vickers focused more on our physical, institutional and appreciative (including cultural) bases of existence. There are many parallels between these two positions, but from my perspective Vickers' three bases are closer to the discourse of the present day than of the early 90's.

His deliberations about stability, control, technology and progress are also not out of place in the current domain of sustainable development, though today we would talk of people rather than men. The following extract is from his *paper Ecology, Planning and the American Dream* (first presented in 1963 but later published elsewhere) which brings many issues of environment and development together.

> During the past two centuries, men gained knowledge and power, which vastly increased their ability to predict and control; and they used these powers to make the world increasingly unpredictable and uncontrollable. This paradoxical result flowed from the fact that the technologies of which science gave birth enabled man not only to predict but also to alter the course of events in his milieu.

> …the last two centuries ushered in a period of instability such as the world has never seen; a period, moreover, in which every new instability was either welcomed as growth or accepted as the price of growth. The ecological view was obscured, overlaid, lost, even denied, by the new ideology of progress, with its implicit faith in the possibility of linear change which would not be self-limiting. Furthermore, the idea of progress was itself confused by combining too uncritically the ideas of economic expansion and political betterment. (Vickers, 1970 p.59-60)

Ecology and ecological thinking were recurring themes in Vickers' writing. He linked these with ethics and culture. The ethic described in the following extract is still with us in today's discourse though the experiences he referred to were of his times.

> [*Ecologists ...were*]...becoming aware that their own species was destabilizing the common home to an extent without parallel in the rest of the natural world. This became part of Western consciousness only in the last three decades. There had been earlier warnings, notably from the dust bowls on the prairies and failing whale counts in the polar seas. But the now most familiar features – namely population explosion, failing resources and pollution of land, air and water – became part of common Western consciousness, partly as a result of persuasive writing such as Rachel Carson's *Silent Spring* and partly by the direct experience of atmospheric pollution in towns. These were more noticeable because they threatened constraints to the ideology of linear progress, the conversion of ever more material to human use, which had powered Western societies for nearly two hundred years. They also opened opportunities. Some people were shocked by these revelations of destruction, often unintended and long unnoticed, which threatened other species as well as our own. A new set of criteria of the way things ought to be, an ecological ethic, grew up, highly hostile to the ethic of exploitation and linear progress which had dominated Western minds before. The struggle between the two is a notable feature of the contemporary scene (Vickers, 1987 p.128-9).

The issues Vickers raised regarding the water cycle are also still very current. In 1966 he first used the example of the River Thames to consider the nature of changes that had forced new regulative tasks. He considered what he thought likely to happen to it in the near future:

> By then the Thames as an independent physical system, part of the given environment, will have virtually disappeared within a human socio-technical system, dependent on new physical constructions, new institutions and a new attitude to the use of water and the regulation of the whole water cycle (reproduced in Vickers, 1970 p. 91-92).

The European SLIM project which has just recently been completed, addressed these very issues in 2004. This project, which is about social learning for integrated management and sustainable use of water at catchment scale, has taken place at a time of new legislation and regulation of water across Europe with the introduction of the Water Framework Directive. Among its case studies and analysis are discussions of systems, new physical constructions, institutions, attitudes to use of water and recognition of their interdependency (SLIM, 2004).

Modelling

I will end this section with a comment Geoffrey Vickers made about systems thinking and modelling because I think it raises an important challenge in environmental decision making, where we rely heavily on our use of models. It comes from a paper where he discussed implications of systems thinking.

My second and allied anxiety is that the new conceptual revolution, by multiplying our power to make models and our habit of using them, may also magnify our confidence in the models we make and may equally reduce our confidence in our power to know any reality we cannot explicitly model. The clear message of systems thinking is that human scope is limited and that we cannot use even what scope we have except in a situation in which we are sensitively and intimately engaged. We have been offered this insight and the temptation to ignore it and vested interests powerfully favour the second. This we should avoid both as a duty and as a vital interest of our society. For if I am right, we can know more, as well as less than we can model and we shall be doubly hampered, even by comparison with our present plight, if we overrate our models and underrate ourselves (Vickers, 1978 p. 89-90).

At a recent conference[2] I heard Humberto Maturana explain that as humans we cannot distinguish between perception and illusion at the time of an event, only afterwards, and we are often taken in by illusion so we make mistakes. This is not just an expression of our capacity to know but of how our biology operates. Maturana was questioning cultures that make it difficult for us to admit we have made mistakes. This resonates for me with Geoffrey Vickers comments on human scope being limited and how that relates to our capacity to know. Vickers also repeatedly emphasised the importance of culture (Vickers, 1987).

From my perspective, Vickers' insights into ecological and systemic thinking are somewhat dispersed across his writing. This is probably because his purpose of inquiry and experiences were different from mine. But brought together, his insights illustrate to me someone who appreciated aspects of environmental and development issues that many of us are still struggling with today.

Appreciation and appreciative systems

Geoffrey Vickers developed the concepts of appreciation and the appreciative systems. As part of this process he considered appreciative behaviour, appreciative judgment and appreciative settings:

Navigating around Vickers' work
I did not find it easy to navigate my way around Vickers' work on appreciation. So for others who may also be attempting the same journey I first summarise some key references I found useful.

Among Geoffrey Vickers' earliest work on appreciation was an article called 'appreciative behaviour' (Vickers, 1970 p. 147-168), originally published in 1963. He also wrote three chapters on (i) appreciation, (ii) three case studies in appreciation (the Buchanan report on

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[2] Systems Practice for Managing Complexity (SPMC) Network event 6 September 2004, Oxford. *A day with Humberto Maturana on Fundamentalism, Ethics and Leadership*.

traffic in towns, the Robbins report on Higher Education and the Gowers report on capital punishment) and (iii) the appreciative system (Vickers, 1965 p. 36-74).

Later he discussed 'the appreciative basis of existence' (Vickers, 1972 p. 17-28) and 'the appreciated world' (Vickers, 1972 p. 95-103).

He wrote about policymaking and appreciation, appreciation and regulation, the appreciative process, appreciative learning, communication and appreciation, changes in education and appreciation (Vickers, 1987) and appreciation and action (Vickers, 1983).

My process of appreciating appreciation

So, having read all the above references and more, what do I understand from Vickers' concept of appreciation? I make two observations before I go on. First, it took me quite some time and I had to work through an iterative process to understand the concept of appreciation. It took me even longer to discover just how relevant it was to my own work and how I could use it. Second, I found Vickers' earlier elaborations more difficult to engage with than those later on. For instance, I didn't find it easy to grasp what was meant by appreciation in Vickers' model of appreciative behaviour, described in 1963 (Vickers, 1970). I felt that to understand the emphases in the description, it was necessary to understand the times in which it was written. Margaret Blunden's description of Geoffrey Vickers' intellectual journey I found very useful in this respect, particularly her comment that *'What Vickers was attempting was no less than to persuade psychologists to move on from behaviourism to phenomenology'* (Blunden, 1984 p.25). Vickers repeated emphasis in his work on the distinction between the processes of appreciation and choice of action can perhaps be better understood if one remembers that it was written at a time when behaviourist traditions of psychology were much more prevalent than they are today. The case for focusing not on action but on appreciation – a combined process of 'the observation of the actual and comparison with the norm' (Vickers, 1970 p.149) that may or may not lead to action, had presumably yet to be made. Indeed Vickers goes on to explain that

> Most psychological research has concentrated on problems concerned with the selection of action, and for this purpose has held constant and made certain the relevant reality and value judgements. If we want to know how a rat solves a problem, we must know for certain what problem it is trying to solve; so we make it hungry enough to ensure that finding its food is its dominant problem. But most of the problems which humans try to solve are set by their own appreciative judgments and cannot be guessed without making assumptions about how reality and value judgments are formed (Vickers, 1970 p.150-151).

Today, with the case for 'systems thinking' underpinning practice now well documented (Checkland, 1993; Open University, 1999b) and the development of more diverse theoretical traditions in psychology and learning, there is perhaps less need to make the case for processes besides 'choice of action'. Though I have found lack of recognition of the processes that may or may not lead to action, and how we define action, are still current issues.

One other reason it took me time to understand Vickers' concept of appreciation was because he contextualised it differently in his different writings. For instance in *Appreciative Behaviour* (Vickers, 1970 p.147-168) he started from discussion of information, communication and control as concepts of growing importance with wide application in psychology and social sciences, whereas in his references to appreciation in *Science is Human* (Vickers, 1970 p.184-215) he contextualised it in science.

> For facts are relevant only by reference to some judgement of value and judgements of value are meaningful only in regard to some configuration of fact. Hence the need for a word to embrace the two, for which I propose 'appreciation', a word, not yet appropriated by science, which in its ordinary use (as in 'appreciation of a situation') implies a combined judgement of value and fact (Vickers, 1970 p.198).

Elsewhere, when considering policymaking, he started with an emphasis on regulation which I find very relevant to environmental decision making (Vickers, 1987 p.13). His emphasis is on standards and he expands what he means by 'norms', going on to introduce the idea of 'appreciative settings' which he equated with our 'readinesses of the mind' to see, value and respond (Vickers, 1970 p.59, 1965 p.54). I found this best captured in:

> This [*appreciative*] setting cannot be observed; it can only be inferred after the event and it changes with the events which reveal it. To take a very simple example – the meaning for me of a communication which I am about to receive will depend in part on whether I believe it; but my belief in it will depend in part on the impact which it makes on me when I hear it. So the appreciative system with which I await it may be radically reset by the activity of responding to it. Thus the setting of the appreciative system, personal and collective, is more uniquely self-determined by the cyclical process already noticed and thus more 'historical' than any other phenomenon which we need to understand (Vickers, 1970 p.207).

Vickers described appreciation as a highly dynamic and systemic process:

> We are changed not only by being talked to but also by hearing ourselves talk to others, which is one way of talking to ourselves. More exactly, we are changed by making explicit what we suppose to have been awaiting expression a moment before. ...we know very little about how we carry on this extraordinary activity. We have not even a name for this state of affairs in our heads which is the fruit of past communication and which is both the target and the interpreter of present communication. ...Nearly all our communication is directed to changing its state in others or in ourselves. It is strange that neither scientific nor common speech should have a word for it.

> I have taken to calling it an appreciative system, because the word appreciation, as we use it when we speak of appreciating a situation, seems to me to carry with it those linked connotations of interest, discrimination and valuation which we bring to the exercise of judgment and which tacitly determine what we shall notice, how we shall discriminate situations from the general confusion of ongoing events and how we shall regard them. I conceive it as consisting largely of categories for

classifying and criteria for valuing experience.....I call it a system because these categories and criteria are mutually related; a change in one is likely to affect others. The actual state of this system at any one time I will call its current setting. And I shall use these terms both for individuals and for the common settings which distinguish and give coherence to groups, societies and cultures (Vickers, 1987 p.98-9).

Given how Vickers conceptualised and valued appreciative systems it then came as no surprise to me that he ranked it as one of three bases of our very existence, alongside physical and institutional bases (Vickers, 1972 p.20). I found this highly insightful when using these ideas in my own work.

It took me time to engage with Vickers' work on appreciation but I found it time well spent. I used the conceptual tools of appreciation, appreciative systems and settings to help me structure my inquiries and interpret my research findings. I found the conceptualisation of appreciation particularly useful as I now think of it as an important process in environmental decision making but distinct from action.

Learning, social learning and learning systems

Geoffrey Vickers wrote a lot about learning, (e.g. Vickers, 1965, 1980, and 1987). His greatest contribution to our current discourse on learning was, in my view, his substantial work on appreciative systems where learning processes are referred to throughout, either explicitly or implicitly. To me, he describes appreciative systems as learning systems. (By a learning system I mean interconnected subsystems, made up of elements and processes, that combine for the purpose of learning. The placement of a boundary around this system depends on both perspective and detailed purpose.)

My separation of appreciation from learning in this paper is therefore an artificial one, but I want to acknowledge and hopefully raise awareness of the range of Geoffrey Vickers' contributions in this area.

Vickers defended the need to focus on more than 'learning to act'. I recognise in the following description some aspects of environmental decision-making processes in which I have been involved:

It has been my experience that the debate which occupies hours, days, even months between the posing of some problem and its disposal serves not so much to produce a series of possible new solutions as to alter what those concerned regard as the relevant facts and the way in which these are classified and valued.

I recall an occasion when an important governing body debated for a year what should be done in a situation which seemed to require some radical solution. They finally decided that there was nothing to be done. No action followed – yet nothing was ever the same again. The mental activity which reached this negative conclusion radically changed their view and valuation of their situation. In

particular, it changed their idea of what can be tolerated; a most important threshold in the regulative cycle.

Men, institutions and societies learn what to want as well as how to get, what to be as well as what to do; and the two forms of adaptation are closely connected… (Vickers, 1987 p.16).

Changes in behaviour, changes in a learner and changes in learners' relationships with others and/or their environments may all provide evidence of learning depending on how learning is theorised (Brockbank and McGill, 1998). Vickers recognised these different sorts of learning, for instance in his work on 'the inner world' (Vickers, 1970 p.59-60) and on inner and outer relations and the interface between them (Vickers, 1978 p.81). He focused a lot of his work on how humans develop the ability to see and value rather than act.

In the field of learning, I find it useful to draw two distinctions. The first is between learning to appreciate and learning how to act. Learning how to act has been intensively studied by psychologists and by students of artificial intelligence...we have a fairly explicit model of the way in which both nervous systems and electronic systems develop readiness-to-do, awaiting appropriate signals. Within the field of appreciation I draw another much more difficult distinction between seeing and valuing. Ethologists recognize that even creatures much simpler than man....set up in their nervous systems some kind of map of their home ground, sufficient to guide them, wherever they may be within it....In man, this capacity for representing to himself his manifold contexts and using these representations as a basis for communication and for forethought is his most striking characteristic, distinguishing him from other creatures far more sharply than his ingenuity as a doer. This kind of learning has received curiously little attention from psychologists, compared with the obsessive attentiveness given to readinesses-to-do....Readinesses-to-value are still further from the drawing boards of both psychologists and intelligence simulators.... (Vickers, 1987 p.94)

Developing readinesses to see and value, or to make both reality and value judgments, using past standards and developing new ones, were at the centre of Geoffrey Vickers' work on appreciation. He acknowledged that these processes could be carried out by either individuals or groups and in doing so he recognised 'social learning', a concept still very much in use today (SLIM, 2004).

The norms which regulate biological growth change only on an evolutionary time scale and are data for the individual.... The learned responses of even the simplest organism are an individual achievement; but the criteria of success and failure which endorse them are largely given. Creatures capable of social learning, on the other hand, are exposed to two streams of education, one stemming from social experience and transmitted usually by the parents; the other stemming from individual experience (and lack of experience) and the two can often be seen in open conflict at levels far below the human. In human beings, both social and individual experience have been vastly amplified through the development of

symbolic communication; and (probably from the same cause) the individual has developed means and needs to organize his own experience in the interests of inner consistency and acceptability, as well as external efficiency. Thus in each of us the appreciative system is in endless development, under the far from consistent demands of three hard masters .... the physical world of biological survival, the social world of communicating persons; and the personal world of conscious experience. We have to live with the realities of all three worlds, all equally real. And in all three dimensions, experience is constantly at work to develop that appreciative system which is the supreme artifact of individuals and societies (Vickers, 1987 p.92-3).

I found some very useful distinctions in Vickers' work with which I can make sense of my data and organise my inquiries. I can, for instance, make distinctions between learning how to appreciate and learning how to act, between developing readinesses to do, see and value and between (often conflicting) streams of education that stem from social and from individual experience (and lack of it).

I think that the idea that 'the appreciative system is in endless development…in far from consistent…physical, social and personal worlds', captures the dynamic process of learning very well.

CONCLUSION

The main conclusion I have reached following my exploration of the work of Sir Geoffrey Vickers is that it is full of insights that are relevant to living, working and being in today's world. They are distributed through his writing and what appears insightful depends on one's perspective. My lens for reading Vickers' work focused on systemic and ecological thinking, appreciative systems and learning. I found this work highly relevant to my research, both theoretically and methodologically. In relation to my research needs I have found in Vickers' work a way of conceptualising and linking my inquiries and some distinctions I can use in understanding both learning and action. I will continue to use Vickers' concepts and insights – to notice, question, structure, analyse and synthesise.

Vickers once commented that:

> ...The last two hundred years have left us with an appreciative system particularly ill-suited to our needs (Vickers, 1970 p. 59-60).

I feel my own appreciative settings have changed as a result of my engagement with Vickers' work. For instance, I now recognise and value processes of appreciation in people's descriptions of their learning systems that I had been unable to respond to before I started. I think my appreciative system is now better suited to meet the three needs I expressed at the start of this paper. Perhaps if we use more of Geoffrey Vickers insights we may develop an appreciative system better suited to meet our needs in other respects?

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