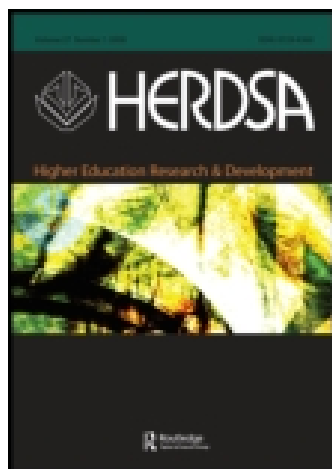


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The critical thinking debate: how general are general thinking skills?

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This paper takes up the issue of whether the skill of critical thinking in university education is best thought of as a broad universal generic skill or rather as only a loose category taking in a variety of modes of thought. Through the linguistic analysis of some sample texts, I argue that the discourse of general thinking programs should not be thought of as a generalist discourse at all, but in fact a quite specific one. The implications both for the teaching and testing of critical thinking are considered in the light of this position.

Introduction

In the 1975 film *The Enigma of Kaspar Hauser* made by the enigmatic German expressionist director Werner Herzog, the eponymous character Kaspar has, for reasons not made clear, spent much of his childhood locked in a cellar. There he is almost completely deprived of human contact. As a young man, Kaspar is rescued from his isolation and without speech, reason or memory is forced to engage with the world. He has much to learn in a short period. Not surprisingly, he is the object of much curiosity, including that of a professor from the nearby university. The professor is interested in Kaspar's cognitive development, and subjects him to what today would be called a battery of critical thinking tests. In a memorable scene, Kaspar is presented with the classical problem:

There are two villages, the village of truth where everyone tells the truth, and the village of lies where everyone tells lies. The roads from the two villages meet at a fork. You are standing at the fork wanting to travel to the village of truth and you see a villager walking towards you. You need to establish which village he is from, and you can ask just one question.

Kaspar Hauser's thoughtful response to this problem I shall return to later in this paper.

Like the professor in the film, most modern educators are of the view that the ability to think critically is fundamental to a good education, and also fundamental to being an active and engaged citizen in the world. In recent years, the term has

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become increasingly prominent in educational debates, especially in relation to the issue of the kinds of generic skills and attributes undergraduates are expected to acquire in the course of their degrees (see for example Australian Higher Education Council, 1992). But despite the importance attached to the skill of critical thinking, and despite assurances by many universities that it is imparted to students as a matter of course, a number of unresolved questions remain. Central to these is the issue of whether critical thinking is in fact a universal 'generic skill' able to be applied invariably to the situation at hand, or whether it is best conceived as only a loose category taking in diverse modes of thought. And related to this conceptual issue is a central pedagogical question: is it best for our undergraduate students to be taught about critical thinking as a subject of study in itself, or should it be handled within the context of students' study in the disciplines?

In this paper I wish to review the current state of the generic vs. discipline-specific debate, particularly the positions held by two of its more active contributors—the generalist Robert Ennis and the specifist John McPeck. I shall argue here that the debate has become stalled in recent years, partly because it has remained fixed for too long within the disciplines of philosophy and cognitive science. What is needed at this stage, as indeed the educational philosopher Ennis (1992) recognises, is a more discourse analytical approach, involving 'careful comparative analysis of articles and arguments' from a range of disciplines.

In the second part of the paper, I shall discuss some very preliminary findings from such an analysis—one that looks at critical thinking practices as they are manifested in a range of sample texts. The results of this analysis, which lend provisional support to a more specifist approach, are considered in the light of recent developments in Australian higher education which see a tendency increasingly the other way—towards a more generic approach to critical thinking teaching. This latter trend is particularly evident in the recently developed *Graduate Skills Assessment* test. I argue that any move towards wide-scale thinking skills testing in universities should be approached with a good deal of caution.

The critical thinking debate

The 'critical thinking' debate, played out over the last two decades mainly in North America, has been marked, it must be said, by a high degree of disputation. This is not surprising. Indeed, it would be disappointing if the concept itself were not subjected to the same critical scrutiny that it so enthusiastically advocates for other fields of inquiry. According to McPeck, one of the debate's leading protagonists, the substance of discussion has revolved around two key issues: what critical thinking is exactly, and how it is best taught (McPeck, 1990). As McPeck explains, the answer to the second question—the application issue—is clearly contingent on what answers might be proposed for the first—the more basic definitional issue.

I shall begin with the definitions pursued by Ennis, arguably the leading figure in the generalist movement. It is fair to say also that the Ennis line has become the 'standard approach' (McPeck, 1990), the one that has formed the theoretical

foundation of many critical thinking programs, especially in the USA. Whilst Ennis' original formulation goes back to the 1960s, it is a position that he has not seriously modified over the years. He begins with an overarching definition: 'critical thinking is the correct assessing of statements' (1962, p. 81). Ennis provides some elaboration of what this 'correct assessing' entails, with his codifying of an extensive list of 'aspects' or 'sub-skills' of critical thinking. These include: 'grasping the meaning of statements; judging ambiguities, assumptions or contradictions in reasoning; identifying necessary conclusions; assessing the adequacy of definitions; assessing the acceptability of alleged authorities'. This taxonomy constitutes the core of Ennis' pedagogical project, and has been used as the organising principle for many critical thinking curricula. Whilst Ennis does acknowledge that there is a 'criterial dimension' to these skills of judgement—that is, they may be applied variably to different situations—he insists that they exist as a set of independent cognitive abilities which can be taught in relation to any propositional content.

There have been two ways that Ennis' and other generalist analyses (e.g. D'Angelo, 1971) have been applied educationally. One has been the proliferation of general thinking skills courses in US universities, beginning with the mandating of formal instruction in critical thinking throughout the California state education system in the 1980s. These courses are typically stand-alone subjects that seek to develop in students 'a set of critical thinking dispositions and abilities' that can help them, as Ennis describes, 'to decide what to believe and to do' (Ennis, 1985). The other application has been in the field of critical thinking tests. Ennis himself has been active in this latter enterprise with the development and promotion of his own *Cornell Critical Thinking Tests*. A common feature of these tests is their division into a series of subtests, each purporting to measure the various skills of critical thinking of the type outlined in Ennis' sub-skills taxonomy. Ennis, for example, has subtests on induction, deduction and identification of assumptions. The point about these tests is that they may be taken by testees from any disciplinary background, and thus, of necessity, rely on a content that is only incidental to the skills being tested.

I referred to John McPeck earlier as a leading protagonist in the debate, but his role has been more that of antagonist. Indeed, McPeck is one of only a small group of thinkers who has conscientiously resisted the growing generalist trend. McPeck offers an important counter-definition of critical thinking, namely 'the appropriate use of *reflective scepticism* within the problem area under consideration' (1981, p. 7, original emphasis). Whilst McPeck's 'reflective scepticism' can be distinguished as a more modest activity than Ennis' 'correct assessing', the really substantive difference between the two definitions is the qualifying element in McPeck—'within the problem area under consideration'. Thus, for McPeck, what counts as an 'appropriate use' of scepticism will vary from one domain to the next, even from one situation to the next. Thus, the practice of critical thinking, he believes, cannot be separated from the domain to which it is applied. It is nonsense, McPeck says, for someone to claim that they teach thinking *simpliciter*. This is because thinking, by definition, is 'always thinking about something, and that something can never be 'everything in general' but must always be something in particular' (1981, p. 4). The implications for teaching of the McPeck position are that the development of students' critical

abilities should always be pursued within the context of their study within the disciplines. As he succinctly summarises the differences in the two approaches:

If I were to put my disagreement with the [general thinking] movement into one bold-relief sentence it is this: in their attempt to develop critical thinking, they have the order of cause and effect reversed. They believe that if you train students in certain logical skills (e.g. the fallacies etc.) the result will be general improvement in each of the disciplines or qualities of mind. Whereas I contend that if we improve the quality of understanding through the disciplines (which may have little to do with 'logic' directly), you will then get a concomitant improvement in the thinking capacity. (1990, p. 21)

McPeck, in dismissing the possibility of a general set of thinking skills, as well as the efficacy of attempting a program based on them, draws heavily on Stephen Toulmin's ideas on variable modes of argumentation. To quote Toulmin (1958):

What has to be recognised first is that validity is an intra-field, not an interfield notion. Arguments within any field can be judged by standards appropriate within that field and some will fall short; but it must be expected that the standards will be field-dependent, and that the merits to be demanded of an argument in one field will be found to be absent (in the nature of things) from entirely meritorious arguments in another. (cited in McPeck, 1981, p. 32)

It is this epistemological issue—whether different fields of knowledge depend on variable principles of critical thinking—that has most recently occupied the participants in the debate. McPeck (1992) insists on differences—'the crucial epistemic questions', he says 'tend to vary among domains and subjects' (p. 204). Ennis (1992) insists not surprisingly on similarities, although concedes that 'the extent of interfield commonalities is a topic that does require extensive research' (p. 31). What is needed to resolve the deadlock, Ennis suggests, is studies involving 'the careful comparative analysis of articles and arguments [from a range of disciplines]' (p. 31). This is an interesting research agenda for someone from Ennis' background to set. This is because it takes the inquiry out of his and McPeck's fields of educational philosophy and psychology and into the area of discourse analysis. Regrettably however, it is an agenda that has not been pursued in any systematic way thus far by either side in the debate.

Critical thinking in text

In this paper I wish to take up in a very provisional way Ennis' 'careful comparative analysis' agenda by looking in some detail at some sample texts (Figure 1). Central to the definitions of critical thinking we have considered—from both generalist and specificist positions—are the notions of 'judgement' and 'evaluation'. For Ennis, being a critical thinker is having the capacity to 'decide' what to believe and to do. Toulmin refers to ideas being 'judged' by standards appropriate within that field. The texts I have selected for this provisional analysis have this much in common—all contain an element of judgement (or evaluation) of a set of ideas. However, they have been deliberately taken from a range of fields and textual genres, which I describe below—and which are summarised in Table 1.

Text 1: Extract from ‘thinking’ textbook for students (Ruggiero, V. 2001. *The art of thinking: a guide to critical and creative thought*. New York: Addison Wesley Longman. p. 247.)

Consider the following ARGUMENT:

All Mensa members are intelligent.
Some goatherds are Mensa members.
Therefore, all goatherds are intelligent.

It is true that all Mensa members are intelligent (at least in terms of the mental characteristics measured by intelligence tests). So it would be logical, even inescapable, to conclude that those goatherds that are Mensa members are intelligent. But the premise speaks only of some goatherds not all of them. So it would be improper to conclude that all of them are intelligent. Non-members may be positively brilliant, but too modest to celebrate their intellectual gifts, or they may be dumber than the animals they tend. On the basis of what is given here, we simply cannot say.

Text 2: Extract from chapter on ‘critical thinking’ (McPeck, J. ed. 1990. *Teaching critical thinking: Dialogue and dialectic*. pp 36-37, original emphasis).

I am arguing that just as different rules of predication constitute different language games, so different modes of reasoning constitute what we call “subject areas”. Each is a different “category of understanding” (in a Wittgensteinian sense), and each has its own “rules”, as it were, of reasoning. This is what renders a general thinking skills approach *implausible* from a theoretical point view, and *ineffective* from a practical point of view - at least I so submit.

Text 3: Extract from anthropology review article (Poethig, K. 1998. Review: *Braving a New World: Cambodian Refugees in an American City* by Mary Carol Hopkins. *American Anthropologist*: 100, 1.

It is surprising that the refugees in Hopkins’ study express no political or national self-consciousness beyond their now classic formulation as survivors of the Khmer Rouge. Should not a ‘holistic’ ethnography also attend to these transnational linkages, particularly given the profound shifts in Cambodia during the period of her research? This absence may be partly due to the fact that her time was spent primarily with women and teenagers, who might have paid less attention to political transitions in Cambodia. Indeed, Hopkins’ ethnography is the most vivid in sections dealing with women’s role in family life, particularly kinship relationships and rituals.

Figure 1. Three sample evaluative texts

Text 1, a starting point for the analysis, is an extract from a popular university ‘thinking’ textbook (Ruggiero, 2001). As a piece of writing, it exemplifies well the general thinking skills approach, discussed above. The extract outlines an argument (in the form of a syllogism), and then provides a commentary on the value of this argument. Text 2 is also from the field of critical thinking; in fact it is taken from a source already referred to at length in this paper—McPeck (1990). But whilst it comes from the field of critical thinking, it constitutes a different textual genre and fulfils a different kind of rhetorical purpose—an expository text from a monograph. In this extract, we see a recapitulation of some of the discussion above—the author, McPeck, makes a number of assertions about the distinctiveness of different modes

Table 1. Summary of texts used in analysis

Text—synopsis	Field	Genre	Rhetorical purpose
1. evaluation of syllogism	critical thinking	textbook	pedagogical
2. evaluation of educational approach	critical thinking	monograph	expository
3. evaluation of ethnographic study	anthropology	review	expository

of reasoning, and then uses these as a basis for commenting on the value of the ‘general thinking skills approach’.

The third sample text—an extract from a review article from an anthropology journal—looks a little incongruous alongside the other two samples. It is presented here as an example of a very field-specific text—one that typifies the style of critical writing that students are required to produce within their studies in the disciplines. In fact, the text emerged out of discussions I had with an anthropology lecturer who was interested in the ‘review’ genre as an assignment-type that could foster students’ critical capacities in his subject. In this extract, the writer (Poethig) refers to a study conducted by a particular anthropologist (Hopkins) and then offers comment about this study.

The three texts used in the analysis thus have in common a critical element, but on what basis are we to decide whether this element is of similar or different order across the three examples? I wish to pursue this question by considering each in relation to three different dimensions—what I have called the *object* of evaluation, the *content* of evaluation, and the *register* of evaluation. I shall consider each of these in turn. It is hoped that such an analysis will offer some insights into the interfield issue, and in turn provide some basis for judging the relevance of the generalist and discipline-specific approaches.

Dimension 1: object of evaluation

The first dimension, the object of the evaluation, probes what precisely in the text is being evaluated. I mentioned that the texts are all concerned in a general sense with evaluating a ‘set of ideas’. But how are these ‘ideas’ characterised in each case? What type of knowledge form is being considered? In Text 1, the ideas are referred to as an *argument* (*Consider the following argument*) which is provided in the text—the aforementioned syllogism. In Text 2, the ‘object of evaluation’ is characterised as an *approach* (*the general thinking skills approach*). Whilst the details of this approach are not provided here in this extract, they are earlier on in the chapter from which it is taken. In the earlier section, the author refers to a range of teaching programs that exemplify the approach, including Feuerstein’s *Instructional Enrichment Program* and De Bono’s *Productive Thinking Program*. Finally in Text 3, the object of evaluation is a *study* (also referred to as an *ethnography*) written by an individual anthropologist—Hopkins.

The variable nomenclature found in each text—an *argument*, an *approach*, and a *study*—suggests that the thinking in each case is directed at a different type of

knowledge. The generalists might assert in response that *argument* is the general term; that is, every set of ideas we wish to evaluate constitutes an argument in some sense, including those considered in Text 2 and 3. But, whilst we might say that the *approach* of a group of educationists or an anthropologist's *ethnography* can, at a stretch, be considered arguments, they are not really arguments in the sense that the term is being used in Text 1; that is, in the form of a deduction drawn from a number of uncontested propositions.

Another difference we can comment on briefly here is the source of ideas in each case. What is being evaluated in Text 1 is a set of ideas that have not actually been proposed by any individual thinker. Indeed, it is very hard to imagine a context where such statements about 'Mensa members' and 'the intelligence of goatherds' might be uttered in any meaningful way. In this sense, Text 1 is dealing with a form of knowledge that we can consider anonymous and hypothetical. In contrast, the objects of evaluation in Texts 2 and 3—an educational approach and an ethnographic study—are not hypothetical, but the work of actual thinkers who are clearly identified in the critique. I shall not dwell on this difference now, but shall show later how this feature has a bearing on the manner in which the evaluation is framed—that is, on the third dimension, the *register* of the evaluation.

Dimension 2: content of evaluation

The second dimension is the content of the evaluation. Briefly this dimension considers what precisely is said about the ideas being evaluated—whether they are thought to be of value or not, as well as the basis on which this evaluation is made. To summarise, in Text 1 it is asserted that part of the *argument* is *true* (the first premise), and that certain conclusions, if drawn, would be *logical*, even *inescapable*. However, the argument's conclusion, as given, is said to be *improperly* drawn. In Text 2, the author McPeck, after making several assertions about 'rules of reasoning', states that the general thinking approach is theoretically *implausible*, and practically *ineffective*. In the anthropology review, it is suggested that the ethnographic study is not as complete (or *holistic*) as its author claims it to be, but is nevertheless *vivid* in those particular aspects that are covered.

We would not expect the form of evaluation in any two texts to be the same. But what does seem clear here is that in each case rather different evaluative criteria are being relied on. Drawing on the terminology of each text, these contrasting criteria can be summarised thus:

- the *truthfulness* of premises and the *logic* of arguments (Text 1)
- the *plausibility* of theory and the *effectiveness* of practice (Text 2)
- the *holism* and *vividness* of descriptions (Text 3)

Do these differences suggest fundamentally different epistemologies at work? This is a difficult question to answer. However, some light can be shed on the matter by analysing linguistically the evaluative categories used in each case, i.e. *true*, *logical* (Text 1); *plausible*, *effective* (Text 2); *holistic*, *vivid* (Text 3). An important feature to consider here is the gradability of these categories; that is, whether it is possible to

have degrees of the particular quality in question. In traditional semantics, the quality *pregnant*, for example, is considered ungradable (as in *one cannot be half pregnant*), whereas the quality *beautiful* is gradable (as in *she is very beautiful*, or *she is less beautiful than another*). Adjudicating on the gradability/non-gradability of terms is not always straightforward, and there is often a usage element that needs to be considered. It would seem however, that the evaluative categories used in Text 1 (*true* and *logical*) are distinctly of the ungradable type; that is, it does not make much sense to think of a premise as being *fairly true*, or an argument *fairly logical*, and it is impossible to imagine the commentary in Text 1 proceeding in these terms. Whilst the critique in Text 2 is couched in absolute terms—the general thinking approach is judged by the author McPeck to be *implausible* and *ineffective*—this is nevertheless, a form of critique that does permit the adopting of intermediate positions. For example, the approach could be held to be *less plausible* than an alternative approach, or *less effective*. In the anthropology review, the gradable nature of the evaluation is indicated explicitly—the reviewer suggests that the ethnography is *not as holistic* as the author would have it; and elsewhere, that the ethnography is at its *most vivid* when dealing with a particular subject matter.

As justification for their approach, the generalists claim that the critical thinking developed in general contexts is readily transferable to other, more specific contexts. Thus, we need to ask here whether the evaluative criteria employed in Text 1 could be applied to the specific contexts of the other two texts. The gradable/non-gradable difference noted above suggests some degree of incompatibility here. To take the anthropology text as an example, whilst the author in her evaluation of the study under review, may think of herself drawing very broadly on notions of *truth* and *logic*, these would seem not to be in the same definitive and unequivocal terms of Text 1. In fact, the discipline of anthropology has tended in its recent theorising to reject firmly any positivist approach to its subject matter. Clifford Geertz, for example, a leading scholar in the discipline, suggests that ethnography no longer believes in the possibility of ‘impeccable descriptions’ of cultural phenomena (Geertz, 1973, p. 18). According to Geertz, the work of the ethnographer has most in common with that of the literary critic involving ‘sympathetic readings of cultural data’. Hence we see in our sample anthropology text a reliance on evaluative criteria that have a distinctly literary nuance about them—*vividness* and *completeness*. Similarly, the criteria called upon in the education text—Text 2—would seem to be tied intimately to the particular concerns of that discipline. According to Becher (1989), education, as an applied discipline, is concerned principally with the development of educational ‘protocols and procedures’, which are judged, Becher says, ‘mainly in pragmatic and utilitarian terms’ (p. 17). Thus, in Text 2 the general thinking skills approach is dismissed by McPeck ultimately on the grounds of its *ineffectiveness*.

Another way of thinking about the issue of compatibility is to consider the extent to which the criteria we have observed might be applied in the reverse direction, that is, from particular to general. If, as is claimed, the general can be transferred to the particular, then we need to assume there is some potential for transfer the other way. Indeed, in testing contexts, where students from different disciplinary backgrounds must undertake common thinking tasks, it is precisely this type of transfer that is

assumed. But one wonders here how the criterion of, say, *effectiveness* from Text 2, or of *vividness* from Text 3 could be drawn on to think about the syllogistic reasoning presented in Text 1. Whilst we obviously need to be very cautious about drawing firm conclusions from the limited textual data considered here, there would seem equally to be a need for caution in assuming the unproblematic applicability of criteria across these general and specific domains.

Dimension 3: register of evaluation

The third dimension I shall consider is what I have termed the ‘register’ of the critique. This dimension explores not what is said in the critique (dimension 2), but rather the manner in which it is said. This is a distinction that corresponds roughly to Halliday’s (1994) metafunctions of language—the ‘ideational’ (the what) and the ‘interpersonal’ (the how). Analysis in this dimension probes those linguistic elements concerned with interactional (or dialogic) meanings in a text; that is, the way that relationships between the text’s various participants—the writer, the written about, and the readership—are constructed. In critique writing, this social dimension is of particular interest. This is because the genre involves judgements about the work of others and thus, as Hyland (2000) says, carries ‘considerable risks of contestation and personal conflict’ (p. xii). Being critical of the work of another constitutes what sociolinguistics refers to as ‘a face-threatening act’, one that will often need to be mitigated by the critic (Myers, 1989).

This time I shall begin with Text 3—the review article—where the social relations are handled particularly sensitively. The first sentences express explicit criticism of the work—its lack of *holism*—but interestingly, responsibility for this deficiency is not attributed directly to the study’s author, but rather is deferred to the study’s subjects. (*It is surprising that the refugees in Hopkins’ study express no political or national self-consciousness*). This is an interesting rhetorical strategy because the refugees, as the subjects of the study, cannot of course bear any responsibility for the quality of the work they are described in. In the next sentence, where the focus shifts to the study itself, the risks of personal conflict are heightened. We notice here some mitigation of the criticism through the use of an interrogative form (*Should not a ‘holistic’ ethnography also attend to ...?*). In the remainder of the extract, the reviewer helpfully tries to explain the source of the problem (*This absence may be partly due to the fact that her time was spent primarily with women and teenagers*), and then sees this interestingly as a source of strength in the work (*Indeed, Hopkins’ ethnography is the most vivid in [these] sections*). Thus, in this extract we see a careful balancing of criticism and praise, a strategy that enables honest evaluation of the work, but without unduly derogating the reputation of the work’s author. Such a strategy is described by the Nobel prize-winning biologist, Francis Crick, in his reflections on his long career. Crick also hints at the problems that can arise when these social considerations are ignored.

I learned that if you have something to say about a piece of scientific work, it is better

to say it firmly but nicely and to preface it with praise of any good aspects of it. I only wish I had always stuck to this useful rule. (cited in Hyland, 2000)

The interactional element in the McPeck text serves as a contrast with that in Text 3. There is an absence of praise here, and as we noted earlier, no obvious attempt to mitigate the critique. (*This is what renders a general thinking skills approach implausible from a theoretical point of view, and ineffective from a practical point of view—at least I so submit—original emphasis*). The antagonistic tone of this text can be attributed in part to it being directed at a less personal target—not an individual scholar, but a collective *approach*. But there would seem to be additional contextual factors that impinge. Unlike in the review article, where the relationship between reviewer and reviewed would appear to be a distantly respectful one, the McPeck extract comes from what we know to be a longstanding and fractious debate between established scholars. Thus, the forcefulness of McPeck's judgements needs to be seen in the light of this disciplinary dynamic.

But there is a further interactional element in McPeck that requires comment—this is the qualifying tag—*at least I so submit*—appended to the judgement. As Hyland (2000) suggests, personal reference of this kind imposes a limitation on criticism, 'representing it as the writer's individual opinion, rather than as an objective characteristic of [the work under review]' (p. 57). Significantly, the McPeck extract also begins in the same contingent way (*I am arguing that ...*). Thus, whilst the judgement in this text is a strong one, it is not construed as any final one. There is no 'correct' assessing of statements here; rather we need to think of the judgement as the contribution of one thinker in a continuing dialogue.

I have been suggesting that the differences in the register of Text 2 and 3 can be related to the variable social contexts in which they were produced, and in particular the different relationships that inhere between 'critic' and 'criticised'.¹ I want to argue now that the remaining text, Text 1—taken from the general thinking textbook—can be distinguished from the other two by its lack of a social dimension. It was noted previously that what is being criticised in this text is not a social form of knowledge that has emerged out of disciplinary debate, but rather an invented form of knowledge—a syllogism—unassociated with any individual scholar or school of thought. Indeed, as was also noted, it is hard to imagine a context in which anyone might propose such ideas. (This is the case incidentally with much of the content used for analysis in general thinking programs.) This lack of a social context, and a lack of a sense of dialogue between scholars and their ideas, has a clear bearing on the interactional language of Text 1. We see for example none of the 'prefacing with praise' noted in Text 3; in Text 1 the argument's conclusion is simply declared to be 'improperly' drawn. Such is the nature of the knowledge form being considered—an ill-formed syllogism—that no mitigation of this judgement is possible, but neither would we say that it is socially necessary here. In the invented syllogism, no-one's 'face' is threatened. Similarly, the personal attribution noted in the McPeck extract would also be out of place. To write in response to the syllogism—'*I am arguing that the conclusion is improperly drawn*'—would seem anomalous. This is because the judgement in this case is not a 'personal viewpoint', but the uncon-

testable outcome of fixed logical operations. As we noted above, the McPeck extract ends with a declaration of the provisional nature of the judgement offered—*at least I so submit*. The coda to Text 1 is rather different; there is the assertion that no more can be said about the issue raised in the argument—*on the basis of what is given here, we simply cannot say*. Thus, in the socially oriented commentary, further interaction is invited; in the non-social commentary it is deemed not to be possible.²

The analysis of these texts, within the three dimensions I have outlined, has thrown up a number of differences. The important question at this point is whether we should think of the critical thinking inherent to each as being of a basically similar or different order? And importantly, is the type of thinking that might be fostered in the general thinking text (Text 1) likely to help students to produce a discipline-specific text say like Text 3? Contrary to the impression that may have been given in the preceding discussion, I do not think a discourse analysis is able ultimately to provide clear answers to these questions. This is partly because one needs to be cautious, as Taylor (1986) has suggested, about trying to infer from any textual artefact the cognitive processes that might have contributed to its production. It is clear too that conclusions based on such limited textual data can be not much more than speculations at this stage.

But what we can say is that in the case of these samples, the discourses (the written instantiations of the thinking processes) do appear to be different. Even when we compare Text 1 and Text 2, which are *prima facie* from the same domain (critical thinking *per se*), we notice important divergences. What I want to suggest from the above analysis is that the discourse associated with generalist critical thinking training (as in Text 1) may be best thought of as not a *general* discourse at all, but rather a quite *specific* one. As features of this discourse, we would include from the analysis:

- a focus on quite specific knowledge-forms—i.e. *argument* conceived as a restricted number of statements, and appraised in terms of their logico-semantic relations. (Dimension 1)
- a reliance on positivist (non-gradable) criteria of evaluation, like *truthfulness* and *logicality* (Dimension 2)
- a lack of a social-orientation in the framing of the critique. (Dimension 3)

I do not wish to suggest that this type of discourse is not a valid one for our students to learn about, only that it may be a mistake to see it as the model for other discursive forms that they will need to engage with, both in their studies and later in their professional lives. Thus to expose a group of anthropology students to a text like that in Text 1 and imagine that it could assist them unproblematically in the writing of a piece like Text 3 would seem to be pedagogically ill-conceived.

Robert Ennis (2001) in his most recent manifesto on the aims of the critical thinking movement suggests that the ideal critical thinker has, among other qualities, a disposition both ‘to get things right’ and ‘to care about the worth and dignity of every person’. Of this second aim, it is hard to see much in the discourse of general thinking that could assist in the fostering of this kind of social disposition. Indeed, it could be argued from the analysis above that the pursuit of the epistemo-

logical aim—‘the getting it right’—is bound to place serious limits on the achievement of any social aim.

Present and future directions

In Australia, the critical thinking debate is moving arguably in two main directions—towards a range of ‘specificist’ positions on the one hand, and towards a fairly hardline generalist position on the other. Among the specificists are those whose research is focused on identifying the distinctiveness, even uniqueness, of different disciplinary cultures and discourses. One such example is the Macquarie University *Researching academic literacies project* (Candlin & Plum, 1998), a large-scale survey of writing practices in ‘the disciplinary worlds of academic study’. As the main researcher on the project concludes: ‘Disciplinary cultures are extraordinarily differentiated in almost any respect one might name’ (Candlin, 1998, p. 5). The consequences of this position are clearly explained by Hyland (2000): ‘Each [disciplinary] discourse has unique ways of identifying issues, asking questions, ... presenting arguments, and these make the possibility of transferable skills unlikely’ (p. 145).

But whilst some researchers might claim to find only incommensurability in these different fields, this does not really seem to fit with the experience of our students. It is a fact of undergraduate study that students in many degrees typically negotiate a wide range of subjects and associated modes of thought—and they usually manage to do this without too much difficulty. This observation is the basis for a weaker relativist position. Ballard and Clanchy (1995), for example, recognise that although a generic skill like critical thinking can only be developed within specific contexts of knowledge, once learned ‘it does not have to be learned totally anew in each new context of knowledge’ (p. 164). Gordon Taylor (2000) also adopts a qualified relativism. In any attempt to outline a coherent view of modern university education, the starting point, Taylor suggests, must always be the specifics of disciplinary knowledge. But there is equally a need, he says, to try to identify whatever overarching patterns might inhere these knowledges:

The attempt to articulate what transcends particular discipline specific knowledge and technique is one that cannot be shirked. Indeed given the nature of human language and thought, which rely upon generalisation, it is inevitable. But there are considerable complications. (Taylor, 2000, p. 158)

The ‘complications’ to which Taylor refers are those that arise from trying to draw together in some intelligent way the homogeneity of the general with the pluralities of the particular.

But whilst there is debate on the specificist side about just how specific and just how transferable (or non-transferable) skills like critical thinking might be, on the generalist side, there seem to be few doubts, and not much thought of ‘complications’—it must be said. The increasing boldness of this movement can be attributed in part to the influence of US trends, but also to the homegrown conceptualisation of ‘generic skills’ first outlined in the Australian Higher Education Council’s report *Achieving quality* (1992). One manifestation of the trend has been the development

and active promotion of a range of courses in general thinking. For example, Tim van Gelder (2001), a philosopher at the University of Melbourne, describes a critical thinking software program he has produced, premised very much on the Ennis definition of critical thinking. According to van Gelder, critical thinking is simply a process of ‘sorting the true from the false’—or ‘the art of being right’ (p. 1). Among other purported virtues of his generalist program is the claim that students using the software ‘are setting world records for critical thinking improvement’ (p. 9), an assertion which one would hope has been subjected to just a little critical scrutiny.

Another development, a more contentious one to my mind, has been the emergence in the last few years of the *Graduate Skills Assessment* test commissioned by the Australian Government’s Department of Education, Training and Youth Affairs. The test includes a critical thinking component among a number of other generic skills to be tested. The test designers acknowledge that there is a contextual element to all thinking, and thus the test relies on an apparently neutral content—what they call ‘real world viewpoints’ (Australian Council of Education Research, 2001). A sample item from the critical thinking component of the GSA is shown in Figure 2. Here again, we can see writ large Robert Ennis’ ‘correct assessing of statements’, in this case the task of assessing the relationship between a ‘proposition’ (*Our society will benefit from less government intervention and regulation*) and a ‘statement’ (*The future offers great opportunities and great challenges for our society to deal with*). In this type of test there must be a single correct response, which is given in the answer key as a relationship of ‘irrelevance’ (Response E). I do not wish to take issue with this interpretation, although it is important to recognise that such a response is just that—an interpretation. Indeed, it could be argued that how a test-taker sees the ‘relationship’ will depend to a large degree on whether they have pre-existing knowledge of the ‘real world viewpoint’ being considered (i.e. *laissez-faire* vs. interventionist philosophies of government), and also importantly, whether they have a commitment to either position.³ Thus, the GSA format fits with the non-gradable judgements we observed in the general thinking text (Text 1), but not with those gradable, more nuanced judgements characteristic of the discipline-based texts—Texts 2 and 3.

How the *Graduate Skills Assessment* is to be used is still not clear. At present, in its pilot form, the test has been taken mainly by individual students who wish to have an additional paper qualification to take to an increasingly competitive job market. But there are intimations that the GSA might be adopted on a mass scale in Australian higher education as a way of measuring the critical abilities of graduate cohorts, and thus the overall quality of a university’s programs (Department of Education Science and Training, 2001). The recent experience of literacy benchmark testing in the school system in Australia suggests that a GSA employed in this way could be used as a way of determining positions on national league tables, and ultimately as a way of determining funding levels to institutions. Such a use would make the GSA truly a high stakes test, and we could expect, in this scenario, the test to have significant washback on university curricula. University administrators would be most keen for their students to perform well on the test, and so we would

Sample Question

Indicate which of the alternatives (A–E) most appropriately describes the relationship between the following proposition and statement:

Proposition: *Our society will benefit from less government intervention and regulation.*

Statement: *The future offers great opportunities and great challenges for our society to deal with.*

In relation to the proposition, the statement:

A can be used as significant support.
 B can be used as a significant counter.
 C merely repeats or offers insignificant support.
 D merely contradicts or offers an insignificant counter.
 E is irrelevant and cannot be used as support or to counter.

Figure 2. Sample item from *Graduate Skills Assessment* test—critical thinking section (ACER)

expect the philosophy of general thinking skills, or at least that version of it found in the GSA, to insinuate itself increasingly into the disciplines. This would be, I believe, for the reasons outlined above, grounds for some concern.

Conclusion

In concluding, let me return to where we began—with Kaspar Hauser and the problem of the villages of truth and falsehood. What question can Kaspar ask to establish the identity of the approaching villager. Says Kaspar haltingly, ‘I would ask “Are you a tree frog?”’ ‘What?!’ exclaims his interrogator. Kaspar explains: ‘I would ask “Are you a tree frog?” If he answers that he is not a tree frog, I would know that he is from the village of truth. But if he answers that he is a tree frog, then I would know he is from the village of lies’. The critical thinking expert is most displeased. ‘No, this is not an acceptable question’, he declares. ‘This has nothing to do with logic. Logic means to conclude, not to describe. I am unable to acknowledge your answer’. (The acceptable question for the professor is, of course, one of those highly knotty constructions, involving, in this case, a double negative which requires the teller of lies to reveal the truth. *If you came from the other village, would your answer then be ‘no’, if I asked you whether you came from the village of lies?*). But Kaspar has failed his test, and this turns out to be a fatal moment for him—quite literally. From this point on in the film, he goes into decline, disillusioned with the ways of the world and its modes of learning. He passes away some time after.

I do not wish to suggest that the implementing of a general thinking skills approach in our universities, along with its associated testing regimes, could have the same dire effect on our students. But, as I have been arguing in this paper, there would seem to be a danger in conceiving of critical thinking in the essentially positivist terms of this approach; that is, by drawing on a number of general critical

thinking heuristics, we can arrive at definitive and final judgements about the rightness and wrongness of propositions, about the correctness and incorrectness of solutions, and about the validity or lack thereof of ideas. Evidence from the type of textual analysis conducted in this paper suggests that this is a far too restrictive notion of critical thinking practices, one that has the potential to limit the possibility of dialogue and to close down the possibilities of other types of knowledge and critique.

Another way that Kaspar might have responded to the problem posed to him would have been to challenge the premise on which the problem is based—that is, whether we should ever want to imagine an intellectual and cultural landscape that might have in it separately located villages of truth and falsehood. If such entities were to exist, we would say that any form of critical dialogue would be obsolete. In the village of falsehoods it would be impossible; in the village of truth it would be unnecessary. But all villages and communities, whether they are physical or discursive ones, are never monolithic but always heterogenous in some degree, with the individuals who constitute them always bringing their own particular experiences to bear on issues and problems. The quality of the dialogue within and between these communities is contingent on acknowledging and also valuing this plurality. The critical thinking movement, by seeking to establish a site where truth is in some sense unproblematic—a village of truth, as it were—does little to advance the potential for dialogue. And in a new world order where communities are increasingly being constructed along the dichotomous lines of Kaspar’s puzzle—‘civilised and uncivilised’, ‘good and evil’, ‘legal and illegal’, ‘willing and unwilling’, ‘truth-seeking and truth-denying’—the maintenance of this dialogue in our places of learning seems especially important.

Notes

1. Tony Becher (1989), in his well-known ethnographic study *Academic tribes and territories*, argues that each discipline has its own characteristic patterns of social relations which arise, he suggests, from the discipline’s particular subject matter and intellectual concerns. Thus, some disciplinary communities will typically be more ‘convergent’, manifesting a sense of ‘collectivity and co-operation’ in their communications, whilst others are more ‘divergent’, manifesting in a more schismatic and antagonistic communicative style. He cites the discipline of economics as a good example of the former, and sociology as a good example of the latter (p.151). See Moore (2002) for further discussion of this particular contrast.
2. And yet there is much ultimately to say about the propositions that comprise the argument presented in Text 1; for example, the assertion that high performance on an IQ test equates with high intelligence, or the unlikely suggestion that a proportion of poor agricultural workers might have sufficient access to education to gain admittance to an educational elite like Mensa. However, it would seem that issues such as these—what constitutes intelligence, and how much it is a socially determined attribute—can only be addressed in a sustained way within the disciplines.
3. If, for example, one came to this problem with concerns about a relinquishing of control to non-governmental forces (e.g. market forces), then the assertion that our society faces ‘great challenges ... to deal with’, might be seen as a ‘significant counter’ to the *laissez-faire* position being proposed. But such a response, within the framework of the test, would simply be wrong, and there would be no opportunity to explore the matter any further. If

we were to draw at this point on the McPeck version of critical thinking, ‘an appropriate use of reflective scepticism’ might be to question whether the relationship between proposition and statement is really as unproblematic as the test item is suggesting.

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