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## Critical thinking and the disciplines reconsidered

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This paper argues that Moore's specifiist defence of critical thinking as 'diverse modes of thought in the disciplines', which appeared in *Higher Education Research & Development*, 30(3), 2011, is flawed as it entrenches relativist attitudes toward the important skill of critical thinking. The paper outlines the critical thinking debate, distinguishes between 'top-down', 'bottom-up' and 'relativist' approaches and locates Moore's account therein. It uses examples from one discipline-specific area, namely, the discipline of Literature, to show that the generalist approach to critical thinking does not 'leave something out' and outlines why teaching 'generic' critical thinking skills is central to tertiary education, teaching and learning, and employment opportunities for students. The paper also defends the assessment of critical thinking skills.

**Keywords:** critical thinking; generalist; specifiist

There may not be prayers in public schools, but by G\_d generic skills will be taught in universities!

(My Granny, with apologies to J.A. Fodor)

### Introduction

Graduate attributes have been a topic in higher education since massification of education, and consequent public-sector investment, brought a requirement for accountability. Recently, graduate attributes have resurfaced in the relationship between higher education and employability. Employers emphasise the importance of producing graduates who have 'generic skills'. A survey of 127 employers by Graduate Careers Australia indicates how important generic skills have become. A number of employer-desired skills were not 'content' or discipline-based at all, but generic. Employers rated interpersonal communication skills (written, oral, listening) well above 'qualifications' and 'previous employment' as the most important selection criteria when hiring graduates (57.5, 35.4 and 27.6%, respectively). Employers ranked 'the least desirable characteristics' to be lack of communication skills at first place in a list of 10 characteristics (40.2%). Poor academic qualifications were ranked fifth (15%). 'Critical thinking' skills, as well as 'Teamwork' and 'Leadership' skills are also typically rated higher by employers than academic qualifications (*Graduate Outlook*, 2006).

Higher education is, more than ever before, a means to employment. But qualifications and content knowledge is not enough. Birrell and Healy's (2008) survey comparing the employment outcomes of local graduates and graduates from non-English-speaking backgrounds found sharp differences in employment success. Only 16% of

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Chinese national graduates from Australian universities obtained employment in Australia, compared to better employment outcomes for native English-speaking local students (Maley, 2008). Employers, it appears, are ‘shunning’ some graduates. Of 120,000 students, only 61% of international students secured full-time work (compared to 87% of domestic students). Some ethnic groups, for example mainland Chinese, do particularly badly, with only 49% obtaining work within four months of graduation (Ross, 2009).

Competence in generic skills makes a difference to employment outcomes. Generic skills need to be part of the curriculum. Potential employees graduating from university need to have adequate literacy, numeracy and interpersonal skills, along with skills in ‘critical thinking’, ‘teamwork’ and ‘leadership’. These are required in addition to any specific technical or content-related skills gained from study of the disciplines.

### The critical thinking debate

The attribute of critical thinking has long been subject to a debate between the ‘generalists’ and the ‘specificists’. The generalist view is that the skill of critical thinking is in large part (if not wholly) non-discipline-specific. That is, there is something about critical thinking that is general to all discipline areas. This implies that critical thinking is teachable independently of the disciplines, by using various approaches, for example, dedicated classes on informal logic or techniques of argument diagramming. The generalists do not hold that there are no discipline-specific differences in *application* of arguments or in the *language* used to describe academic debates. They hold that the *skill* is generic in nature. A major proponent of the generalist view, Robert Ennis (1989), describes it as an approach that ‘attempts to teach critical thinking abilities and dispositions separately from the presentation of the content of existing subject-matter offerings’ (p. 4). For a comprehensive list of abilities and dispositions, see Ennis (1987). The specificist view, by contrast, is that critical thinking is discipline-specific. It can only be correctly taught from a disciplinary vantage point and by using the language of the disciplines. According to a major proponent of the specificist view, John McPeck (1981), ‘Thinking, by definition, is always thinking about something, and that something can never be “everything in general” but must be something in particular’ (p. 4).

The dispute is characterised by Tim Moore in two ways:

[The key issue is] whether critical thinking should be thought of as some universal, abstract category, or whether it is really just a ‘catch all’ term that takes in a wide and disparate variety of modes of thinking. (2011a, p. 262)

Central [to the debate about graduate attributes] 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. (2004, p. 4)

This issue would perhaps be of little concern to anyone except higher education academics if it did not have implications for teaching and learning policy-making. For example, Moore criticises the Graduate Skills Assessment test on the grounds that it assumes a generalist view of critical thinking (assessing relationships between propositions and statements) and does not allow for ‘nuanced judgements characteristic of discipline-based texts’ (Moore, 2004, p. 15). He claims that there is a bifurcation between the two camps (generalist and specificist) resulting in complexities in educational

decision-making in relation to ‘draw[ing] together in some intelligent way the homogeneity of the general with the pluralities of the particular’ (p. 14). There is also, he claims, a failure to recognise a ‘relativism’ in higher education, where students appear to ‘negotiate a wide range of subjects and associated modes of thought [without much difficulty]’ (p. 14), whilst, at the same time, ‘hardline’ positions on generic attributes such as critical thinking are being promulgated as being vitally important for skill-building.

Moore’s (2004, 2011a) contributions to this topic consist of a dilemma casting doubt on the generalist position. His central argument in both papers can be displayed as an argument map, with his contention, or conclusion, in the top box, and reasons for the contention in the linked boxes. The visual representation in Figure 1 makes it easier to understand the argument, uncluttered by surrounding text, and is a tool in use among critical thinking generalists. The argument below is equivalent to the two formulations of his position above. (NB: Argument maps are read from the premises at the bottom to the contention at the top, and evidential grounds or ‘bases’ are provided for each premise. Argument maps are normally in colour: green indicates reasons, red indicates objections, and orange indicates rebuttals to objections.) We shall deal with Moore’s bases for his premises in what follows.

Recently, Moore appears to have changed his position from his earlier paper that sees the universal, generalist view as ‘mistaken’, though ‘a valid one for our students to learn about’ (2004, p. 13). His new position is that the generalist view has ‘limitations’ and that ‘a more useful conception of critical thinking is as a form of “metacritique” – where the essential quality to be encouraged in students is a flexibility of thought, and the ability to negotiate a range of different critical modes’ (2011a, p. 262).

Is the generalist view ‘mistaken’ or does it have ‘limitations’? A difference in view, certainly, but in any event, Moore opposes the generalist account and sides with the specifiist alternative. Each premise of the argument will be taken in turn.

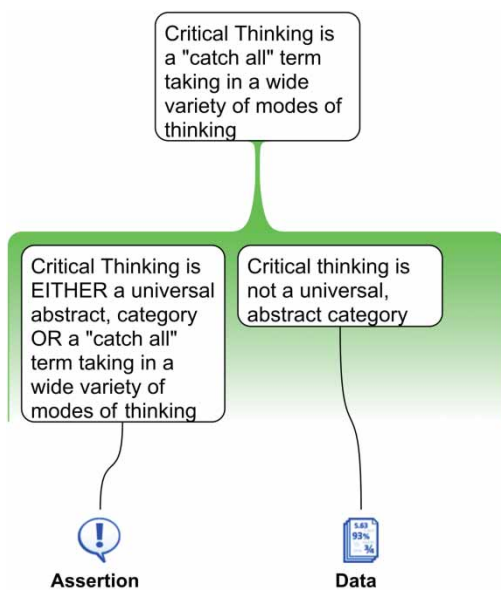


Figure 1. Moore’s argument.

### Critical thinking is not a universal abstract category

Moore's (2011a) evidence for critical thinking *not* being a universal category is data from interviews with 'about six' academics from each of the following disciplines: Philosophy, History and Literary/Cultural Studies (p. 264). Such a small sample size hardly constitutes compelling data as Moore himself admits (p. 263) but, leaving this aside, what does the data demonstrate? In the samples cited, academics surveyed *seem to think* that critical thinking is differently constituted in their respective disciplines. He provides a number of examples (for additional examples, see Moore, 2011a, pp. 265–267):

In explaining what being critical is, I say to my students 'if someone is talking to you and they're saying this is my argument. And what they give you is not an argument, you should be able to *pull them up* and say that was not an argument. What you've given doesn't support the conclusion'. (Philosophy informant#2)

[Being critical in History] is concerned ... with the sources and the way in which you use them. It's *building* on the sources, or organising them in a particular way to *construct* a particular ... picture of the past. (History informant#2)

... we are less obviously critical about the texts we study. In selecting them for a course, we have in a sense given them the benefit of the doubt. I'm never totally uncritical, but if I'm teaching a Shakespearean play, we're not going to say 'Shakespeare was a deficient playwright, wasn't he'. Instead the questions we ask [are]: why do such texts have value as literature, and how does this value come through? (Literary studies informant#2)

He takes these divergences of view to be more than unsupported opinions by a small number of discipline-based experts. He takes them to constitute revealing metaphors that demonstrate something important about the nature of critical thinking. The first (philosophical) approach he notes is concerned with rational *evaluation*. The second (historical) approach is concerned with *constructing* narratives. The third (literary) approach is concerned with textual *interpretation*. These different metaphors (*evaluative, constructive, interpretive*) are thought to be differences in the nature of critical thinking. The first is *logico-semantic* in nature, the second is *creative*, the third, *exploratory* and *interrogative*. Critical thinking is not a 'universal category' he concludes, but displays 'diverse modes of thought' and should be considered specific to the disciplines (Moore, 2004, 2011a).

Note that this position derives from assessment, by the investigator, of a small perspectival data set. It is the investigator's attitude of what *seems to be* the case, from how things *seem to be* to the participants.

Moore explains why this misunderstanding about the nature of critical thinking has occurred. Discussions about critical thinking have been held in a "vitrinous" realm, detached from the domains in which critical thinking actually needs to be applied' and, quoting Atkinson (1997, p. 74), has not been 'rooted in any actual educational reality' (Moore, 2011a, p. 264). The examples used purport to indicate dissimilarities between different kinds of critical thinking. Elsewhere he discusses three different 'dimensions' of critical thinking (Moore, 2004, pp. 8–11). However, in his most recent paper, he uses vaguer language, and refers to 'configuration[s] of critical elements', a 'multiplicity of practices', a range of 'heuristics', 'family resemblances', 'discursive modes' and 'distinctive critical modes' (Moore, 2011b, pp. 14, 16, 17, 19).

Regardless of whether these differences are regarded as 'dimensions' or in the other ways indicated, his claim is that these differences amount to a rejection of the generalist

view. The disciplinary variations do not easily *transfer* in terms of each other. They have different levels of *complexity* (logico-semantic, creative, exploratory and interrogative). They are also difficult to *define* in terms of each other. Adopting an explicitly Wittgensteinian approach, he claims that, as with different senses of the term ‘game’ (card games, ball games, Olympic games): ‘it may be folly to imagine that there is a single core of meaning for the term [“critical thinking”] which in turn is reducible to a defined set of cognitive operations’ ... and that, therefore, the term refers to ‘a multiplicity of practices, ones that are rooted in the quite individual nature of different disciplinary language (and thinking) games’ (Moore, 2011a, p. 271). Teaching students how to negotiate these different critical ‘modes’ by teaching ‘flexibility’ via a form of ‘metacritique’ is needed (2011a, p. 262).

Does this Wittgensteinian-style conclusion follow from Moore’s examples? This is hard to establish as Moore does not make his argument explicit enough to easily criticise. Instead, Moore uses suggestive discipline-based examples and relies on the reader to be convinced by the general position. But, let us try to reconstruct the argument and look at a parallel example for comparison. The argument appears to be this:

- (1) Instances of critical thinking in the disciplines (*logico-semantic, creative, exploratory*) are hard to define, have different levels of complexity and don’t transfer easily from one context to another (without loss of discipline-specific modes of thought).
- (2) This raises doubts about what the generic term ‘critical thinking’ refers to and how much commonality there is in how critical thinking is used in the disciplines.
- (3) Therefore, critical thinking is not a universal, abstract concept.
- (4) Therefore, critical thinking is a *discipline-specific* concept.

An argument with an identical form – another technique beloved of generalists – brings out the logical move:

- (1) Printer fonts in documents (*helvetica, roman, gothic*) are hard to define, have different levels of complexity and don’t transfer easily from one document to another (without loss of formatting).
- (2) This raises doubts about what the generic term ‘fonts’ refers to and how much commonality there is in how fonts are used in documents.
- (3) Therefore ‘font’ is not a universal, abstract concept.
- (4) Therefore ‘font’ is a *document-specific* concept.

There is something wrong with this argument. The notion of a ‘font’ (critical thinking) *does* seem to be a useful universal concept in spite of the objection. We know in general what ‘font’ refers to, we don’t have problems applying the notion of ‘font’ to new instances, we know one when we see one, and so on. The universal term ‘font’ is descriptive of various instances of fonts. While one font (form of critical thinking) is certainly not the same as another font, it is also true that the conceptual category ‘font’ captures commonalities between different font types. The same is true, of course, with critical thinking.

It is on the strength of this reasoning, however, that Moore rejects critical thinking as a generic skill and locates it within the ‘diverse modes of thought’ of the disciplines

requiring ‘flexibility of thought’, ‘distinctive critical modes’, ‘different heuristics’ and ‘metacritique’. This allows him to concur with McPeck (1981) that:

Thinking, by definition, is always thinking about something, and that something can never be ‘everything in general’ but must be something in particular. (p. 4)

Compare:

Printing, by definition, is always printing something, and that something can never be ‘everything in general’ but must be something in particular.

In one sense, this statement seems trivially true. On a narrow reading, critical thinking is transitive. (One can’t *critically think* without an object to think about.) This seems to make the statement immediately compelling. But the statement claims something more substantial. On a wider reading, the entire enterprise of critical thinking as a generic skill is being questioned. It is on the basis of this, and the argument earlier, that we are supposed to accept the idea that critical thinking should be seen in terms of discipline-specific ‘modes of thought’, and be sceptical of critical thinking assessment tests.

### Critical thinking is either a universal category or a ‘catch all’ term

Moore simply asserts, without argument, the following ‘dilemma’ (from which we are invited to choose one ‘horn’): critical thinking is *either* a universal, abstract category or a ‘catch all’ term taking in a wide variety of modes of thinking in the disciplines. As is clear from the preceding discussion, he means more than the *term* ‘critical thinking’, he means its *nature* (i.e., the skill) as well. However, this is tantamount to being an ungrounded premise, that is, an unsupported assertion, a false dichotomy involving the *fallacy of the false alternative* (Quinn, 1994).

We don’t have to accept this assertion. It is reasonable to accept that the generic critical thinking is fundamental at certain levels whilst accommodating discipline-specific critical thinking *discourse* higher up. This is sometimes called the ‘infusionist’ position. This is the view of others (Ikuenobe, 2001). Figure 2 outlines this view. The shade indicates the *priority of dependence* of universal generic skills (the

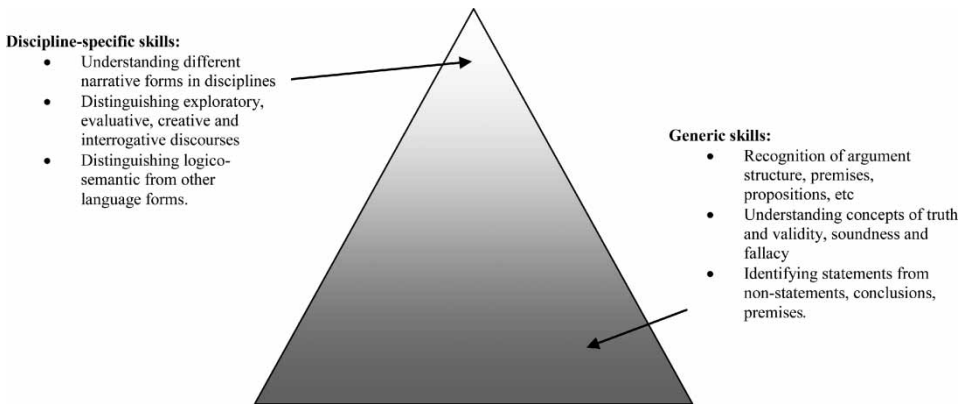


Figure 2. The infusionist position.

logico-semantic) lower down on the infusionist view, and the relative independence – though not completely – of critical thinking discourse (narratives, characterisation, etc.) higher up (see Ikuenobe, 2001, for an outline of the various stages).

Exactly where the generic, universal form of critical thinking and the narrative discipline-specific instances of critical thinking discourse meet and diverge is open for conjecture. Perhaps, in the scheme of things, this is unimportant. The important thing is an acknowledgement that Moore's dilemma is not a dilemma at all and that no horn needs to be chosen. His view, by contrast, is that the generalist position is 'mistaken' or 'misleading', and that (Atkinson, 1997, p. 74) it is 'desiderative and polemical' in nature (Moore, 2011a, p. 264).

### Does critical thinking as a general skill leave something out?

There is more at stake here than the nature of 'critical thinking'. Moore wants to suggest that one reason why the generic view of critical thinking is wrong is that it does not *explain* diverse critical facets of the disciplines mentioned earlier (*evaluative, constructive, interpretive*). According to Moore (2011a), the evaluative 'philosophical' mode is not primary at all, though, he adds – perhaps in a spirit of conciliation: 'there is unlikely to be any harm for students participating in general thinking programs' (p. 263). His position, however, is that the generalist view is 'probably misplaced' (p. 263) and that other considerations need to be included in an all-encompassing discipline-based, 'relativistic', discourse-enabled view of the nature of critical thinking. This is akin to the *top-down* view and not the *bottom-up* view, as illustrated in Figure 3.

I have drawn these as triangles with a foundational base, as the general skill of critical thinking undergirds, I assume, disciplinary variations higher up. But the apex of the triangles should really be hydra-headed, with a 'point' for every discipline, that is, '^^^^^^'. To describe Moore's (2011a) position as 'top-down' is being too generous, however. Moore makes it clear that he wants to make the slide into *relativism*: 'one would hesitate to privilege any particular mode [of critical discourse] over any other' (p. 17). Elsewhere he cites approvingly Barnett's 'increasingly sophisticated relativism' (Barnett, 2000, p. 122; see also Moore, 2004, p. 14; 2011a, p. 272). In fact, his position is more like that illustrated in Figure 4, with no precedence of any

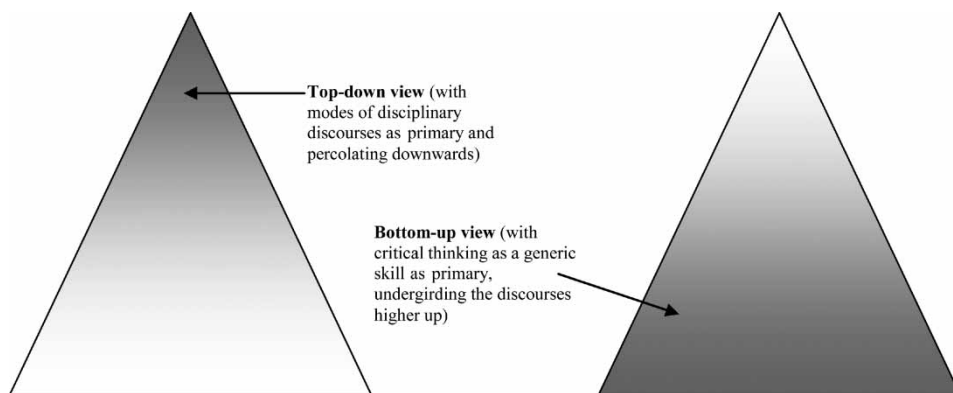


Figure 3. The 'top-down' and 'bottom-up' positions.



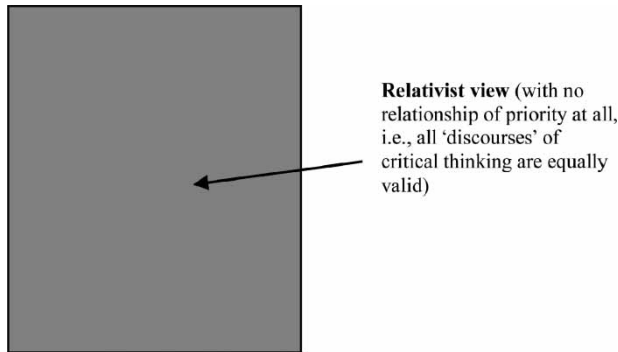


Figure 4. The relativist position.

kind between generic critical thinking skills and the ‘modes of discourses’ in the disciplines.

What is the nature of the disagreement between the top-down view and the bottom-up view? Is this move to relativism justified? Moore’s claim is that critical thinking *qua* universal/generalist category (call this CT1) does not explain the ‘diverse modes of thought’ in the disciplines (call this CT2). I claim that it does. However, importantly, I do not claim that CT1 *explains away* these different modes of thought. Indeed, the ‘infusion’ approach outlined earlier is a statement of the obvious: at one level critical thinking consists of inferential connections, logical relationships and so on (CT1), at another it expresses discipline-relevant relationships – persuasiveness, narratives, character descriptions, and so on (CT2) (Davies, 2006). Critical thinking skills are principally generic, though this does not rule out other ways in which one can interpret the word ‘critical’. The term ‘critical thinking’ is notoriously ill-defined. In this – and only this – Moore and I agree.

However, I go further and claim that the generic sense of critical thinking (CT1) *explains*, without residue, any other supervenient sense of critical thinking (CT2). This is the bottom-up view. Moore does not accept this, and plumps for ‘modes of discourse’ and an unwillingness to accept one mode having priority over another. This results in the relativist view. *Top-downism*, for Moore at least, thus slips naturally into *relativism*.

I have argued against *top-downism* elsewhere (Davies, 2006), but – as the issue keeps coming back (this time as a hardened form of *relativism*) – there is need for another line of response – but first a *caveat*.

### ***Explaining and explaining away***

Explaining something without residue is not the same as *explaining something away*. To make this clear, let’s consider the phenomenon of the sunrise. You and I both talk about the sun rising and falling or ‘setting’. You and I both know that this is nonsense. The sun does not rise and fall at all (more correctly, the earth sinks). However, it *seems to us as though* it does. Indeed, try as we might, it is hard to talk correctly about the astronomical event in its proper terms. It is hard to even *see* the sun rise as – what is in fact – an earth sink, in its proper terms. ‘Sun rising and setting’ has become, in common parlance – and visually – an ineradicable part of how we see and describe

this event, knowledge of the solar system notwithstanding. Philosophers refer to this kind of talk as ‘folk psychology’: false, outmoded attitudes so embedded in our lives that the scientific facts do not dislodge them. There is no *dispute* among us that the earth moves in an ellipse around a stationary sun. Yet, we still talk and ‘see’ the earth sink as a sun ‘rise’. The scientific facts – the correct scientific theory – explains this astronomical event better and more accurately, yet it does not *explain away* the folk psychological talk of sun rises and sunsets. This folk psychological talk remains: a false theory – beloved by poets, artists, adults and children alike – despite our knowledge to the contrary. There is no contradiction between something *seeming* to be true and the same thing being false.

This can be applied to the critical thinking debate: critical thinking *qua* logical relationships (CT1) explains critical thinking *qua* discipline-specificity (CT2) without residue, but does not explain it away. We can still *talk* about the ‘diverse modes of thought’ in the form of the language of the disciplines being different from the logical relationships of universal/generic critical thinking (CT1). We can still *talk* about the importance of character, narratives, persuasion and so on. The critical *language* of disciplinary discourse has a harmless place in discussions on disciplinary topics. But, like talk on sun-setting, this talk adds nothing *substantive* to the nature of critical thinking. I argue later that this is an example of ‘folk psychology’ talk that can result in poor educational decision-making.

Moore’s respondents appear to favour the top-down model. It *seems to them* (the participants) that the critical concerns in their respective disciplines are unique and qualitatively distinct: different disciplines have a *different kind of critical thinking*. Given the nature of academic tribes, this is hardly surprising. Academics like to think that their discipline has unique and privileged access to an epistemic discourse space that others do not have. But does this *seeming* amount to much? After all, it seems to us that the sun rises and falls. Is there any real substance to the idea that the ‘modes of thought’ of the disciplines trumps critical thinking as a generic skill? Let’s take a couple of examples to see if they do. We’ll look at some examples from one of the disciplines cited in Moore’s survey, namely, the discipline of Literature, in what follows, but the same could be done with text from any discipline, from Astrophysics to Zoology.

### Case 1: The insensitive son

A student of French is given the first lines of Albert Camus’ novel *L’Étranger* to translate into English. He or she reads the words:

Aujourd’hui, maman est morte. Ou peut-être hier, je ne sais pas.

A good student could possibly understand enough French to translate the passage, as follows:

Today, my mother died. Or maybe it was the day before, I don’t know.

This translation expresses the linguistic meaning of the two sentences in French. At the level of *translation* nothing appears to be missing. However, there is another meaning being conveyed. Meursault, who speaks these lines is showing a disturbing insensitivity. He lacks what we might expect are the normal feelings of a person whose mother

has just died. Meursault speaks of this event in the same way that one might remember seeing something interesting on the TV, for example: ‘Today, I saw a documentary on Camus’ life. Or maybe it was the day before, I don’t know’.

A very young person possibly would not have enough life experience to realise that these two sentences are revealing about the character that speaks them. They may understand the *linguistic meaning* of these sentences, but not what they are telling us about Meursault’s *character*. They might fail to appreciate the different kind of meaning that can be conveyed. This appears to be a clear example of what Moore calls ‘the diverse modes of thought’ of the disciplines (in this case, Literature).

In the context of the critical thinking debate, the key question is this: does the discipline-specific ‘literary’ interpretation of the passage (CT2) capture something that the ‘generalist’ interpretation (CT1) does not?

Whatever the undeniable discipline-specific importance such information has for literacy experts, I claim that the literary interpretation can be captured, without residue, by critical thinking as a ‘universal’ generic category (CT1). I claim that there is nothing *critically substantive* about the literary ‘mode of thinking’ that CT1 does not capture. By contrast, Moore seems to think it is unique; or, to use an old fashioned term – a *sui generis* sense of critical thinking (CT2).

Camus, the writer, does not tell us *that* Meursault is insensitive. That’s for us to work out: it is a logical inference on the part of the reader. The author expects us to recognise these are not the thoughts of a devoted, loving son. We have to use the clues that the author gives us, and for the adult reader this is not difficult. His two sentences communicate, simultaneously, both the thoughts of Meursault *and* information about his personality. We can, however, easily map the reasoning that leads us to this conclusion as in Figure 5.

The map in Figure 5 shows the author’s implicit contention of the passage in the top box, and the tacit reasoning behind the ‘argument’ in the premise boxes below the contention. Two implicit passages are joined as co-premises (as it seems reasonable, and necessary, to hold both simultaneously). Another premise is represented by itself. Both the co-premises, and the accompanying premise, provide support for the implicit contention.

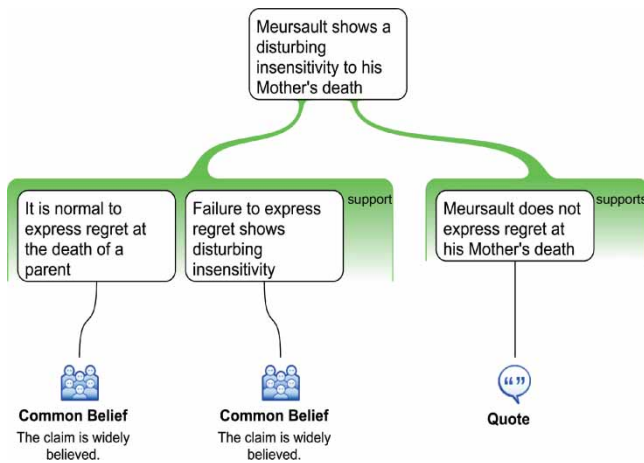


Figure 5. Camus’ insensitive son ‘argument’.

On what evidence, literary or otherwise, are the premises based? We can directly support the premise that *Meursault does not express regret at his Mother's death* by referring directly to the quoted passage (hence 'quote' is provided to ground one of the premises). The co-premises have somewhat more amorphous, but no less legitimate, support. They are based on what might be called 'common belief'. These are the set of (imprecise and often unstated) rules and principles that we, as humans, normally acquire and carry with us from cradle to the grave.

The issue is this: does this mapped version of the meaning behind Camus' passage miss, or omit, any essential *critical* information? Is there anything in the passage that is *not* in the argument map? I don't think so. Does it fail to note that Meursault is unusual in the sense that these are not the normal thoughts of a loving son? Clearly not. Does the mapped version fail to tell us that Meursault is being insensitive? Again, no. Indeed, this information is provided *explicitly*, making it easier to interpret Camus' elliptical passage.

Does the argument map lose some of the beauty and rawness of the language? Perhaps. But then, the critical thinking debate is not about whether logical reasoning is *co-extensive* with the written word. Neither Moore nor I are suggesting that literary language (for example) and critical thinking are the *same thing*. The issue is whether critical thinking is best thought of *in terms of* the universal category of reasoning, or *in terms of* the language of the disciplines. Moore's approach is that critical thinking is specific to the modes of thought *as expressed* in the language of the disciplines and that the universal approach does not capture what the modes of thought (not the *language*) of the disciplines can. But here we have an example of a mode of thought in Literature which is perfectly well captured by the universalist approach, with no apparent residue.

I am not suggesting that the map of reasoning is a replacement or *substitute* for the quoted passage from Camus. It *explains* what Camus is trying to tell us, but it does not *explain it away*. Literature can, of course, be enjoyed on its own terms (e.g. as beautiful language). Literature can also be ruined by over-analysis. There is also more to Literature than arguments. But is there something *critically* special about the literary language in this example that is *not* captured by the argument map? Is there something unique about the 'mode of thinking' of Literature that is inaccessible to the argumentative/philosophical, mode? I think not.

## Case 2: Hamlet is going before God

The works of Shakespeare have not often been taken to be examples of reasoning, though they can:

It is appointed unto all men once to die. Thus it is that each of us must journey to that borne from which no traveller returns. That is only the truth, rue it as we will. Yon Prince Hamlet, the melancholy Dane, he who treated the fair Ophelia so discourteously – and yet who is more to be pitied than censured – he, I say, though we know not when, must surely in his turn shuffle off this mortal coil. So it must be, whether it is a consummation devoutly to be wished or the most unkindest cut of all, for Hamlet is, aye, every inch a man. He shall go before the face of almighty God, then, He who gives and takes all life, for all who die, be they king or beggar, or Prince of Denmark, must do so.

The first thing to note about this celebrated passage is that it *is* an argument. It is more than an assertion. It is also more than beautiful language. Something is being

contended. What is contended is that *Hamlet must go before God*. Reasons are provided for this contention. The whole argument can be charted as an argument map (Figure 6).

Here we have an argument with an intermediate conclusion ('Hamlet must die') supporting a final conclusion ('Hamlet must go before God'). The premises of this passage can be supported either by data (there are no extant examples of men who do not die and plenty of data on men who do), and common belief in the same, as well as common (religious) belief – by some – (assertions by others) about where people go after death. One claim is grounded in little more than assertion. That 'Hamlet is a man' is given to us by fiat by Shakespeare, as well as our knowledge of the play.

Is there anything in terms of *critical analysis* (not analysis of the *language*) that is missing from the passage? Ophelia is not mentioned, but she is hardly germane to the argument being defended. That Hamlet is a Dane – and that he is melancholy – is unmentioned, but this is also superfluous to the *argument* of the passage. Shakespeare wishes to support the conclusion that *Hamlet must go before God* and he gives us reasons for so believing. Other refinements are incidental to this assessment. The sheer poetry of the language is not captured, but this is not the aim of critical thinking. Again, I submit that there is nothing in the 'mode of thought' expressed in this example from Shakespeare's *Hamlet* that is unavailable to critical scrutiny of the universalist/generalist approach.

Specifists might claim that this kind of reading *misses the point* of what is required in terms of a student undertaking a *literary analysis* of Shakespeare. But *critical analysis* and *literary analysis* are not equivalent. The generalist approach to critical thinking does not claim that the language of the disciplines is dispensable or redundant, only that there is nothing in the *discipline-specific nature of critical thinking* that is not captured by the generalist approach. By contrast, Moore *is* arguing that the generalist view is

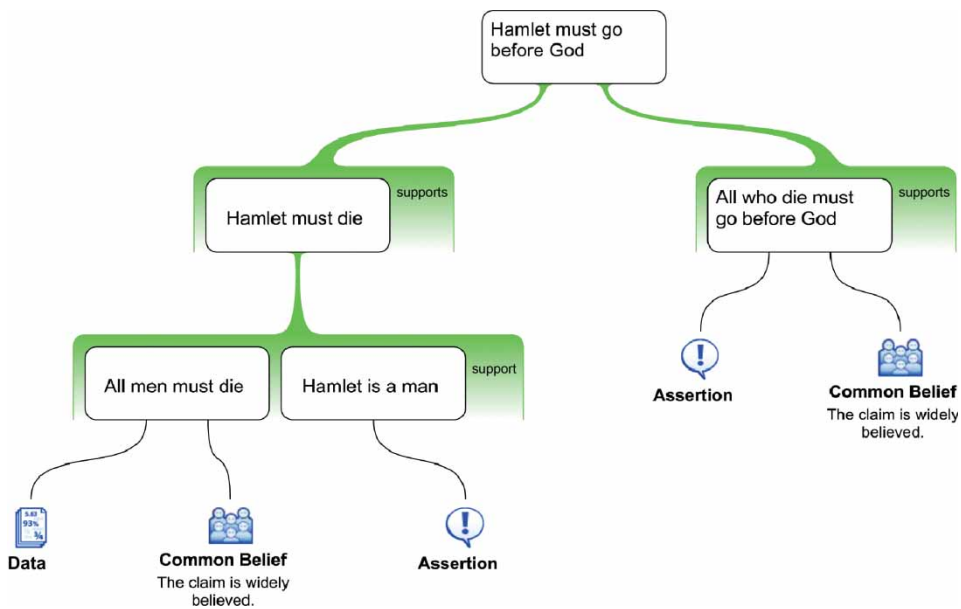


Figure 6. Shakespeare's Hamlet argument.

‘mistaken’ and/or ‘misleading’ and needs to be supplanted with discipline-specific meta-critique.

We have seen that Literature can be used as a means to deconstruct, assess and discuss arguments. (As an aside, I think such argumentative rigour would not be a bad addition to some subjects, e.g. Cultural/Literary Studies.) But I acknowledge that this is not a substitute for the use of Literature for other purposes, for example, the evaluation of the aesthetic quality of the works.

### A conflation of issues

Moore’s position on critical thinking conflates a number of issues and definitions:

- *Substantive theoretical issues*: are universal/generic critical thinking skills the foundation of critical thinking?
- *Semantic issues*: what does the term ‘critical thinking’ mean?
- *Cultural issues*: are there cultural differences in critical thinking?
- *Normative issues*: how should we teach critical thinking?

A number of definitions can also be distinguished:

- *Lexical (descriptive) definitions*: the different ways a term is used
- *Precisive (explicative) definitions*: restricting usage of a term so it is more precise in some context
- *Theoretical definitions*: describing what a term ‘really’ means (i.e., a theoretical understanding of it).

Moore moves from a *lexical* definition to a *theoretical* definition and thence to a *normative* conclusion. The core of his (2007 and 2011a) papers (and his 2011b book), is the observation, based on a small number of interviews, that the (*lexical*) term ‘critical thinking’ is used in different ways in different disciplines. The intermediate (*theoretical*) conclusion is that the universal/generic approach to critical thinking is mistaken. The final (*normative*) conclusion is that the generalist approach to critical thinking should not be privileged.

However, it is fallacious to move from lexical premises to theoretical conclusions. Compare:

- P1: People in the United States talk about human rights in one way (*lexical*).
- P2: People in China talk about them in another way (*lexical*).
- P4: People in Saudi Arabia talk about them in another way (*lexical*).
- IC: Therefore, the idea of universal/generic human rights is mistaken (*theoretical*).
- C: Therefore, the generic conception of ‘human rights’ should not be privileged (*normative*).<sup>1</sup>

Generalists know that the *term* ‘critical thinking’ is used in different ways in different disciplines. Not much follows from that. The generalist’s account of critical thinking cannot be challenged by pointing out that not everyone talks that way, just as the physicist’s definitions of ‘force’ or ‘heat’ cannot be challenged by pointing out that these terms are *used* in different ways (e.g. in the kitchen/lab).

### Why is the generalist position important?

I began this paper by outlining the importance of generic skills for employment success. What is the relevance of this to the critical thinking debate?

Recent work on critical thinking reminds us why the generic skill of argumentation is important. Disturbingly, many students leave school 'unable to understand, evaluate, or write arguments' (Larson, Britt, & Kurby, 2009, p. 340). One study, involving 57 native English-speaking students, found that, without a tutorial on the generic skills of argumentation, college students 'frequently failed to distinguish acceptable arguments from structurally flawed arguments' (p. 358). 'Acceptable arguments' are ones in which a student can distinguish warranted from unwarranted arguments (i.e., supported by a reason) and to distinguish those from assertions (without any reasons at all):

- (1a) People should be allowed to have only two biological children.
- (1b) People should be allowed to have only two biological children because children are small.
- (1c) People should be allowed to have only two biological children because it would help stabilize population growth.

College students could only identify warranted arguments (1c) from unwarranted arguments (1b), from assertions (1a) with only 66% baseline accuracy.

Another recent study involving 76 native English-speaking tertiary students found that students are 'not skilled at identifying key elements of an argumentative text' and 'were not proficient comprehenders of natural, written arguments' (Larson, Britt, & Larson, 2004, pp. 205, 220). Only 30% of all participants could identify and distinguish between *claims* (assertions) and *reasons* in a text. Most selected reasons that could not support the claims being made and mistakenly identified counter-claims as main claims. Interestingly, when provided with explicit discourse markers such as *therefore*, *hence*, *thus* and given a 10-minute tutorial on generic reasoning skills, they showed marginal improvements.

Another five-year study on 2322 American college students reported that 45% of students made no significant improvement in their critical thinking skills during the first two years of college and 36% made no significant improvement after an entire four-year college degree (Arum & Roksa, 2011).

Dispiriting evidence about students' lack of critical thinking skills is not news to those working in universities. Lecturers routinely complain about the lack of critical rigour in students' work, their inability to cover more complex material in class (owing to students' marginal abilities in reading, understanding and satisfactorily processing arguments) and the failure of many students to satisfactorily critique academic arguments in writing tasks. Some of this can be attributed to the large numbers of international students in universities who struggle with English and who come from cultures unused to the critical, argumentative culture of western universities. However, this does not explain the poor performance of native English-speaking students in the experiments just outlined. These results can only be explained by the failure of educators to adequately impart critical thinking skills. One reason for this failure might be our views as educators about the nature of critical thinking.

Moore's relativist approach to critical thinking has real dangers. It fosters complacency – nonchalance even – in regard to teaching critical thinking. If critical thinking is to be understood as 'diverse modes of thinking' in the disciplines, no priority need be

granted to generic skill development – for this is merely one ‘mode of thought’ among many. The consequences of this are undesirable. When educationalists themselves are swayed by the dead hand of relativism, it is unsurprising that little attention has been given to teaching and assessing for these skills. This results in students lacking argumentative skills to perform in universities and the workplace. Employers are right to complain if graduates cannot think critically, educators are obliged to do something about it. The need is urgent. A report on the attitudes of Australian employers claims ‘capacity for independent and critical thinking ... sets apart successful from unsuccessful applicants ... but it is *rare*’ (Commonwealth of Australia, 2000, p. viii, emphasis in original). Research shows that, without purposeful and dedicated intervention, students achieve minimal improvement in their critical thinking skills over the duration of their undergraduate degrees (Hitchcock, 2004). If this is true, it would seem, *contra* Moore, that there is a very sound basis indeed for the introduction of assessment measures such as the Graduate Skills Assessment test and, for that matter, any other well-validated test of critical thinking.

### Coda

The specifist approach to critical thinking is dangerous and wrong-headed. Moore’s (2004 and 2011a) papers neither support a rejection of the generalist thesis nor provide compelling reasons to accept a relativist attitude to the concept of critical thinking. Transferable generic skills such as critical thinking may indeed be hard to isolate and satisfactorily explain, but this is no reason to adopt the comforting illusions offered by specifism and relativism.

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### Note

1. I thank Tim van Gelder for this example, and the points in this section.

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