

## “First Sit Down and Play the Piano Beautifully...”<sup>1</sup>: Reading Carefully for Critical Thinking

MOIRA GUTTERIDGE *Fraser Valley College*

*Abstract:* Students in critical thinking courses are often instructed to “read carefully” as a prerequisite to thinking critically. This instruction, which seems like a simple preliminary caution, in fact reveals controversial assumptions about how readers read, and whether critical thinking instruction presupposes the reading skill it purports to teach.

### 1. What part is reading expected to play in critical thinking?

Careful reading appears to be both a prerequisite for, and an end product of, critical thinking. In courses devoted to teaching critical thinking, most of the instruction and exercises involve the assessment of written arguments. One result of completing such a course is supposed to be an improved ability to read an argument without being misled by any errors in it.

Consequently, textbooks and instructors often advise their students to “read carefully” in preparation for thinking critically; and they may also claim that the reader will become more proficient as a result of the course. For example, Michael Scriven tells the readers of his text, *Reasoning*:

there’s no sharp line between reading and reasoning, because reading with understanding requires that you see at least “obvious” implications of what’s being said, which means making inferences from what’s being said, which is reasoning. ...You may find that a useful by-product of this text is an improved ability to read carefully.<sup>2</sup>

To the extent that critical thinking is supposed to be possible for everyone, one would suppose that the ability to read “carefully”: i.e., in such a way as to

prepare for critical insights, is also possible for everyone. Yet Scriven reports in *Reasoning* that:

About one-third of the answers to questions I use in a doctoral examination for school principals are incorrectly directed because the principal has not read the question carefully.<sup>3</sup>

Reading “carefully”, then, is obviously not found as frequently as one might expect. Why not? Scriven appears to use the example of the school principals just as a brief cautionary tale for his own readers: even among the intelligent and well-educated, careful reading is not automatic. He does not digress to show what it was they misunderstood, so presumably none of the questions was intended to be difficult to understand. Scriven appears to be saying that with a little more thought and attention, the principals could have read the questions correctly, and clearly he expects his critical thinking students to be able to do better if they try.

Is this a reasonable expectation? Is it fair to expect students in critical thinking courses to perform better than the principals? It seems surprising that as many as a third of an intelligent, well-educated group should have misdirected their answers because of *avoidable* errors in reading. Was the fault in the principals, the prose, or in the expectation that they could have read any more carefully than they did?

What is at issue here is not whether it is inevitable that some readers will occasionally disappoint their testers or themselves by performing worse than expected. What is at issue is whether we have correctly understood the relation-

ship between reading and critical thinking. What is "reading carefully", and is it something that can be expected of students? Does the ability to read carefully really demonstrate readiness to think critically? Is it in principle possible for a reader, working alone, to detect all the nuances of meaning that should be noted in preparation for critical thinking?

To what extent, for example, is detecting "at least 'obvious' implications" improved by conscious care or attention? Can we be sure that we agree on which implications are "obvious", and can we be sure that we do in fact make these obvious inferences whenever we read with care? Is the ability to make such inferences already present in every reader—or is it a new ability acquired only as a result of imitating the practices of accomplished "critical thinkers"?

If we have misconceived the nature of the interaction between reading and critical thinking, then we may not be testing what we think we are testing when we assess students' comprehension and performance. Courses in critical thinking might be setting a standard of performance which is not as independent of context as critical thinking has been claimed to be. They might even be presupposing the level of expertise they purport to teach.

## 2. Is the fault in the principals?

Can a reader actually follow instructions such as "understand the original material",<sup>4</sup> or "first read the passage carefully",<sup>5</sup> *before* assessing it critically, and *without* prior instruction about what criteria to apply? Our students can all read—but can they all read with the skill expected or required in this context? When students make mistakes on assignments, can we reasonably say to them, "You didn't read the question carefully,"—and expect that they can then be held accountable for their mistakes? Have we dealt adequately with

their difficulty?

The acknowledgement that we can all read does not, after all, demonstrate that we can all read in any particular way or with any particular skill. Elementary school readers are not generally expected to spot inconsistencies, for example.<sup>6</sup> But on what evidence can we reasonably suppose that this ability does indeed develop during high school so that it may fairly be expected of college students? If anything, a recent study suggests that they do not detect incongruities or inconsistencies in prose as often as we might imagine they should.

In this study,<sup>7</sup> Linda Baker examined the ways in which college readers spontaneously evaluated prose, in a context in which they were all aware that some inconsistencies or other obstacles to comprehension might have been introduced into the passages. Some students were given further instruction, in the form of examples of three sorts of problems they might encounter: statements in the passages might contain nonsense words, might be inconsistent with known facts, or might be inconsistent with other statements in the passage.<sup>8</sup> This task was quite similar to the task presented to critical thinking students who are told to "read carefully": they are given expository prose, they know there may be hazards present, and after some instruction they know what sorts of hazards these might be. Her results seemed to indicate that students who did not receive specific instructions on the types of problems they might find were much less likely to detect problems than those who were shown examples of the problems they might find. Students who received only general instructions seldom checked the consistency of information in the text against their background knowledge: that is, they tended to take facts "at face value". They were also unlikely to notice internal inconsistencies in the text (which would have required following a logical argument). (They did, how-

ever, tend to notice deviations from the theme of the passage: lack of structural cohesiveness; and they did notice unfamiliar words.) While the prompting, in the form of examples of errors, did improve performance, it by no means guaranteed that all errors of that type would be detected.

Reading researchers in general seem to concur that students would not find inconsistencies in reported facts or between statements in a passage equally easy to identify; reading argumentative prose is generally considered to be a task of considerable complexity, involving the interaction of several procedures for understanding the structure and content of the text.<sup>9</sup> Yet this is just the sort of prose that students in critical thinking courses are expected to understand in preparation for assessing its logical strengths.

If Baker's study is an accurate preliminary indication of what we might expect from students starting critical thinking courses, it is not encouraging. Either students do not "see at least 'obvious' implications" as often as we hope, or else the implications are not as "obvious" as we believe.

We might suppose that even if the task of reading is more difficult for students than we might have expected, it is nevertheless a task that most of them do seem to master, one way or another. However, if we do not know whether they are mastering it by improving techniques they already have, or by developing new techniques unique to critical thinking, then we cannot be sure that we are teaching something everybody can learn. If this is the case, then assuming that students can "read carefully", and penalizing them for errors on the assumption that they could have read better, is tantamount to assuming what we are expecting to teach: the ability to detect the correct interpretation of argumentative prose.

### 3. Is the fault in the prose?

Before we decide that students in

critical thinking courses should perform better than Scriven's principals, or the students tested by Baker, we ought to see what sort of inferences are expected of the "careful" reader in preparation for critical thinking. While instructors' expectations and the prose they assign will vary, some texts and instructors do provide examples to show exactly what they expect of the "careful" reader.

Consider, for example, Ralph Johnson and Anthony Blair's preliminary instruction to the readers of their text, *Logical Self Defence*:

Everything we have been saying presupposes that you have first read the passage carefully. Deciding whether an argument is present in a piece of discourse requires being able to recognize exactly what was said and what was not said, and being careful not to read in things that were not asserted.<sup>10</sup>

They then illustrate what they have in mind by a self-testing example, a quotation from Nietzsche, introduced with a brief instruction:

Please read it carefully, and a couple of times.

Gradually it has become clear to me what every great philosophy so far has been; namely the personal confession of its author and a kind of involuntary and unconscious memoir; ...In the philosopher, there is nothing whatever that is impersonal; and above all, his morality bears decided and decisive witness to who he is.

*(Beyond Good and Evil)*

Without looking back at this short passage, answer the following questions about it:

(a) Nietzsche holds here that all philosophy is a personal confession of its author. True\_\_\_ False\_\_\_ ...<sup>11</sup>

I read the passage as instructed (as "carefully" as I know how, a couple of times)—and promptly came to grief on that first question, marking it true. The authors explain how they interpret the relevant sentence, and why:

Does Nietzsche say, in the passage, that all philosophy is a personal confession? No. He says that every great philosophy so far has been a personal confession. ...He takes care to qualify his statement; when you read, you

need to watch for and be sensitive to such qualifications.<sup>12</sup>

Once pointed out, that qualification had a "How could I have missed it?" obviousness: that is, it became immediately clear how it should be used in that sentence to yield an interpretation which makes the answer, "False". Yet I had interpreted it as merely emphasizing that every philosophy *has* been a personal confession: there have been no exceptions to date. If I made a mistake, was the mistake due to failing to read "carefully"?

Professional pride would like to argue that it was not. As a proofreader and copy-editor (as well as a critical thinking instructor), I know that no matter how careful I am in following any procedures which are under my conscious control, I will detect in a first reading no more than 85% of the total number of errors in format or sense found in three consecutive readings. Proofreading does require different techniques than reading for sense, yet it is not so different as to make the comparison inappropriate. In both proofreading and reading for sense, particular attention must be paid to qualifiers, since in both cases it is important to be sure what sense they make in context.

If I can be as "careful" as a professional reader can be expected to be in procedure, and yet can make a mistake in interpretation or error-detection, this suggests that it may be a misnomer to call the mistake a "failure to read carefully".

However, "carefully" is also used in contexts in which it is *not* expected that any particular procedure will guarantee success. If I tell my son to "drive carefully" as he sets out in the car on a frosty morning, I won't necessarily decide he did not heed my warning if he damages the car in a skid on black ice. Nevertheless, the aim of the warning is to indicate that he should not be satisfied with anything less than an accident-free journey. "Be careful", as a caution, is at

best ambiguous between specifying a type of procedure to be followed and the result to be desired. Sometimes it indicates only that there are greater than usual hazards to be watched for, and that success in avoiding them cannot be guaranteed—even for professionals; even in principle.

Johnson and Blair seem in their analysis to take the answer "true" to their question to be the result of an avoidable hazard: an interpretation of the text which is not what the author intended. Are they correct?

When I looked back at the excerpt—carefully!—after failing the test, I not only saw the qualification as the authors read it, I also saw what had probably caused me to overlook or over-ride its significance. The second sentence quoted contains a very strong generalization: "In the philosopher there is *nothing whatever* that is impersonal". [emphasis mine] That phrase which I emphasized makes it most tempting to conclude that Nietzsche did mean that *all* philosophy is a personal confession: that "so far" is an intensifier, to stress that no exception has been found in all the available evidence. After all, if no philosopher is impersonal, and if all great philosophy so far has been a personal confession, then all philosophy *is* a personal confession. Only if Nietzsche intended to keep open the possibilities that (i) some lesser philosophy has been a personal confession, or (ii) some future philosopher will succeed in writing philosophy which is not personal, will the authors' answer to their own question be indisputably correct.

In the passage from *Beyond Good and Evil*, the omitted portion contrasts philosophers with scientists: the sentences Johnson and Blair chose to excerpt for their test in fact bracket a longer discussion in which Nietzsche seems clearly to deny that philosophers could be impersonal: "the moral (or immoral) purpose in every philosophy has constituted the true vital germ out of which the entire plant has always



grown".<sup>13</sup>

The interpretation chosen by Johnson and Blair seems to suggest a use of the qualifying phrase "so far" which, given the pessimistic context, might not have been what Nietzsche intended. The words "great" and "so far" imply the possibility of a change, at least in future generations; but that possibility is **not** at all compatible with the pessimistic tone of the rest of the passage.

If I am guilty of an error in interpretation, then, it is more likely to be a failure to bear in mind possible interpretations the author may or may not have intended. If so, then it is not obviously a failure of the sort which should be caught during a first or second reading, since the interpretation would be open to discussion.

Nevertheless, Johnson and Blair's interpretation might be the correct interpretation of what philosophers really are capable of. Examining the qualifier—and *not* doing our best to reconcile it with the rest of the quote or the passage—gives us the first glimmer of the direction to look if we wish to think critically and avoid being drawn into Nietzsche's apparent pessimism. Taking "great" and "so far" as qualifiers, we know where to look to refute Nietzsche: to lesser philosophers and to future philosophers.

Consequently, the example does not seem to test what it apparently intends to test: the ability to detect a qualifying phrase and make an "obvious" inference from it. The phrase "so far" can serve either as an intensifier or as a qualifier, and in this case I have claimed that there is reason to interpret it as an intensifier. I originally interpreted it that way without conscious deliberation, but it does not follow that I made a mistake in reading. To the extent that the "correct" interpretation is open to discussion, the reading procedure requires this discussion as part of the path to comprehension. Some readers can carry on such a discussion internally before reaching their own first interpretation,

but again it does not follow that this should happen for every reading, or every reader.

Argumentative prose itself may be the "black ice" of reading: it may contain problems of interpretation that care does not necessarily solve. So far, it is not apparent which inferences are "obvious" and which are not. If we wanted to equate "reading carefully" with carrying out a conscious reasoning process while reading, we would still not always be sure what interpretation a careful reader should give. Co-operation between readers, in the form of sharing and discussing their interpretations, may give a better chance of success than any solo effort at interpretation.

I chose the test on the excerpt from Nietzsche for discussion precisely because Johnson and Blair's introductory chapter is sensitive to the need to demonstrate what is required in reading for critical thinking. They discuss words and contexts which are cues to the presence of arguments.<sup>14</sup> They provide this test, and explain their answers in such a way as to provide at least one example of each of the misinterpretations they wish readers to avoid; later in the text, they provide a second, similar self-test with explanations.

However, they do not suggest any *procedure* the reader might use to achieve a correct interpretation of the text, and this suggests that if they do believe such a procedure exists, it is one which is already within the reader's repertoire. The brevity of their discussion of their tests suggests that they suppose the reader follows a conscious decision-making procedure in identifying possible meanings and selecting one. If that is their assumption, then it does make sense for them simply to explain how their interpretation was arrived at, because the reader could check his or her own reasoning against theirs to see where it went astray.

Some texts published since Johnson and Blair's provide similar but more detailed instruction for their readers, ap-

parently recognizing that their readers need even more help to read argumentative prose. Brooke Noel Moore and Richard Parker, in *Critical Thinking: Evaluating Claims and Arguments in Everyday Life*,<sup>15</sup> take two chapters to discuss how to interpret and evaluate claims. They pay particular attention to the need to resolve unclear words and phrases, to compare claims to background knowledge, and to deal with complex expressions. Stephen Naylor Thomas, in *Practical Reasoning in Natural Language*,<sup>16</sup> interweaves instruction in how to interpret argumentative prose and how to assess it throughout his book. In his preface, he explains that the text

attempts to develop necessary linguistic abilities simultaneously with basic logical skills, beginning at almost a secondary-school level... and gradually accelerating in pace, difficulty, and sophistication...<sup>17</sup>

Yet this instruction in reading seems to be provided as a remedial measure, in recognition of the fact that students do not emerge from secondary school able to understand argumentative prose. Taylor says that

today's college students unfortunately often need to be taught how to *read*—and especially, how to read reasoned discourse—closely, carefully, and accurately before much can be done to inculcate valuable logical skills... (emphasis in the original)<sup>18</sup>

Ten years after Scriven, Taylor is expressing much the same resigned acceptance of students' competence that Scriven did. Scriven explained to his readers that the tests in his first two chapters are "essential diagnostic tools" intended to detect reading weaknesses in students who

will have understandable difficulty with a conventional logic or rhetoric course just because they aren't reading carefully.<sup>19</sup>

The tone of these comments suggests that students' difficulties in reading argumentative prose are probably due to weaknesses in their previous education or their effort. When properly instructed

(including the instruction to "read carefully"), students will be able to interpret the prose as expected. Scriven and Taylor both speak as if schooling has failed to awaken what ought to be an inherent ability in their students. If the sort of reading required does draw on an inherent ability, then demonstrations of what students ought to do might indeed produce the desired "carefulness" in reading.

However, instruction in what is expected does not always produce the desired results. Difficulties in reading "carefully" can occur even where instruction has been provided, and a complete argument is to be read. (Taking sentences out of context, as Johnson and Blair's example does, is often considered a fault because it may encourage misconstruals of the author's meaning.)

Consider a second example, in which a nuance of interpretation was to be detected by students in a passage given in its entirety. In this instance, only a minority of the students detected an error their instructor considered obvious. The assignment, in a university critical thinking course,<sup>20</sup> asked students to read a newspaper article and identify two faults in it. The instructor appears to have assumed that both errors could be detected with relative ease. The instructions were:<sup>21</sup>

There are serious errors of reporting in the article entitled 'Cars Deadly for Teens'. (a) In one place the reporter contrasts two sets of statistics which are plainly incomparable. (b) And in another, makes a claim which is patently false, a claim which any adult reader of the article who has even a minimum of knowledge of the world should immediately recognize as false. Find these errors.

The article concerned the risks faced by young drivers, and the "patently false" claim was expected to be found in the following sentence:

More than half of both passengers and drivers in the 16 and 19 age range were found in a recent study to have been fatally injured in nighttime crashes.<sup>22</sup>

Taken out of context, this sentence is

false. Reading it in context, only 32% of the class of over 200 students interpreted it as a false claim. The remaining 68% had read it as the context indicated the author had apparently intended: "More than half of both passengers and drivers in the 16 to 19 age range *who had died...*". Yet these readers were not aware of having needed to insert the qualifying phrase in order to make the sentence fit its context. They had simply read the sentence as if the qualifier were already there. There was no obvious common trait among those who read the sentence as the author intended, or among those who read it as the instructor expected. Yet 73% of the same group detected the other fault they were prompted to find in the passage: the incomparable sets of statistical data, which were located in two different paragraphs. Evidently, the errors were not equally easy to detect: they were not equally obvious.

It might be tempting to dismiss any faulty performance on either of the two examples discussed as mistakes of the sort we are all prone to on occasion: poor instruction, or poor performance—nothing to worry about; just pick ourselves up and try again, continuing to aim for perfect understanding. This presupposes that a reader, when sufficiently "careful", could in principle perform perfectly on such tests.

Yet the instructor and the two authors are experts, who have years of experience in this field, and, more important, had time to think through the examples they chose. If readers do not succeed on either of these tests as often as they were obviously expected to, then there is a mismatch between what readers actually do and what they are expected to be able to do—even after instruction has been provided. This mismatch is not just a matter of undue optimism on the part of instructors. Since the tests involve different types of problems, which may require different techniques to detect, the mismatch between expectation and performance calls

into question what the readers *can* do.

#### 4. Is the fault in the expectations?

In both examples discussed, presuppositions about comprehension are made. Perhaps it is the presuppositions rather than the instructions that are at fault.

Johnson and Blair's instructions to the reader after taking their test are limited to:

You need to watch for and be sensitive to such generalizations...

When you read, keep distinct what is asserted and what is implied by what's asserted...

You must be careful not to read into a person's views something that is not there.<sup>23</sup>

This suggests that they believe that readers are likely to make mistakes in these areas, but that every reader is capable, once warned, of detecting the assertions, qualifications, and implications.

Scriven's comments are similar. His instructions before taking the tests he provides are restricted to instructions in dealing with the multiple-choice answer format, and his answers to the self-testing questions consist primarily of explanations of the reasoning used in reaching the "expert" answer.<sup>24</sup> Like Johnson and Blair, Scriven offers no recommendation on *how* a reader who gets wrong answers on the tests can read more "carefully". Consequently, his explanations of the answers simply support his claim that "reading meticulously" is

a process that involves thinking out the significance and implications of what one reads.<sup>25</sup>

However, it does not seem likely that we can assume that students are naturally capable of "thinking out the significance and implications" as they read, because we cannot assume they will make the inferences and judgements about significance that we

expect them to. It is not obvious that more effort on the students' part, or more instruction, will suffice to eliminate any mistakes they make.

Nor is it obvious that providing remedial instruction in reading will help, since it begs the question to consider the instruction "remedial". More detailed instruction in reading may not bring students to the level we think they "ought" to have been at before starting the course: it may instead be introducing new expectations and standards for interpretation, which are specific to critical thinking.

All the texts and examples so far mentioned operate with the assumption that the reading techniques and standards of critical thinking are independent of any particular content or context. For example, in the example about the risks for teenage drivers, the instructor claimed that "any adult reader... who has even a minimum of knowledge of the world" should recognize the unqualified sentence as false. That phrase was intended as a prompt, indicating to readers that they were looking for a claim that was incompatible with a commonly-known fact about the world. The instructor expected that readers would be able to see that the sentence was false, as written, although they would no doubt also recognize what the author had actually intended. The presupposition was that readers would be conscious of both the grammatical meaning of the sentence and the intended meaning. Supposedly, a "minimum knowledge of the world" suffices both to detect the incongruity and to realize what the author really meant.<sup>26</sup>

But such a supposition is at the very least controversial.<sup>27</sup> It is not clear when and to what extent "common" or "background" knowledge influence the interpretation of a passage, or when they really are shared by the intended readers of a passage. In fact this is part of what is still at issue in critical thinking: can one comprehend and criticize any argument without first acquiring familiarity

with the content and standards of the field in which the argument is presented? Can we reasonably consider that failures to interpret a piece of prose the way a critical thinker "should" are due to failures of reading technique rather than failures of background knowledge?

Consider, for instance, an example of misexpression, closely parallel to the example of the teenage drivers, which I encountered in a catalogue of college courses.<sup>28</sup> The course content was sufficiently unusual that I re-read the description, noticing only on a third reading an incongruity in the following sentence:

You must be 19 years old to take this course.

Just as in the example of the teenage drivers, there is a possible ambiguity due to a missing qualifier. In British Columbia, where the course was offered, the legal age is 19. It was only after re-reading the sentence that I saw both possible interpretations: i) that the writer had intended participants to be of legal age, but had omitted the qualifier; ii) that the writer had intended participants to be exactly 19.

With examples like these, some readers will read in the missing qualifier, and some will not. It is not obvious when, or if, the "careful" reader ought to read it in. Nor is it obvious that the careful reader ought at least to recognize that there are two different readings of such a sentence, when the author's intention makes it clear which reading to choose. To suppose that a reader could spot such an ambiguity is to suppose that the reader does consciously create two interpretations of each sentence: one that the context calls for, and one that the syntax calls for. Some of us do follow such a procedure—it is common in proofreading, where much must be questioned—but can (or should) all readers do it, even when prompted?

The examples I have discussed so far are all taken from texts or courses which do not hold that background knowledge is important, or that they are employing



an unusual reading procedure. It seems reasonable for them all to practice what they preach—but it does not seem reasonable for them to do so in advance of any evidence that their readers really do share their techniques and can interpret the prose correctly regardless of their background knowledge.

Yet curiously enough, a recent textbook which does take into account the probable field-dependence of knowledge and critical thinking: *An Introduction to Reasoning*, by Toulmin, Rieke and Janik,<sup>29</sup> also offers no explicit instruction in what background knowledge to bring to each passage, and contains a remarkable range of vocabulary and contexts. Consider, for example, the following illustration given to explain how the concept of “backing”, or support, may vary from context to context:

Similar patterns hold in other, less formal situations. Our sports fan initially takes it for granted that only a pro football team solid in both offense and defense can be considered a serious contender for the Super Bowl; he sees at first no reason to underline this fact.

...Does such an analysis of past form really confirm his assumption that any team weak in one or the other department has always fallen by the wayside long before the Super Bowl game?<sup>30</sup>

This passage contains colloquialism (“fallen by the wayside”), unexplained sports jargon (“solid in both offense and defense”), and critical thinking terminology (“confirm his assumption”). Throughout the book, examples from sport, medicine, and the law are used without explanation of their special vocabulary.

Either an unusually wide background is presumed of the reader, or the reader is not expected to understand all the examples, or the reader is intended to comprehend the logical content of the example in spite of not being familiar with all the concepts referred to. Experience suggests that neither a wide background nor a ready grasp of logical

points is a reasonable assumption for first year university students—and it seems highly unusual for a textbook deliberately to set out to give examples its readers are not expected to understand.

Consequently, even these advocates of context-dependent standards for critical thinking seem to share the same view about reading for critical thinking: it must be possible for every student to reach the same interpretation as the experts; reaching that interpretation is only a matter of being “careful”; and there is no need for prior instruction in either the content or standards used in the contexts from which the examples may be taken.

However, none of these presuppositions seems to be obviously acceptable given that the interpretations reached by the experts are not as easily reached by their readers. Consequently, adopting these presuppositions in advance of any theoretical or empirical support for them raises serious doubts about the validity of the tests of reading competence we have devised for students who are to learn critical thinking.

## 5. Conclusion

The presuppositions revealed in simply expecting students to be able to “read carefully” suggest that at least some instructors and textbook authors may subscribe to a view of reading comprehension that ought to have far-reaching results for critical thinking instruction: reading “carefully” is actually determined by the *result* of the performance, not by the procedure used. Furthermore, it is in principle possible for a reader to detect all nuances of meaning and/or errors in a passage prior to discussion of its logical merits. Consequently, if the reader sees the same interpretation as the experts, the reader has “read carefully”; if not, the reader has made a mistake—no matter how slowly, thoughtfully, or repeatedly the

reader has studied the passage. Then, if there is a procedure for "reading carefully", it seems to suppose that the reader can "check his background knowledge at the door", so to speak, and generate interpretations of each sentence which do not depend on the use of any context wider than that sentence.

But these presuppositions create a picture of critical thinking which is not a routine enhancement of an inherent human ability. Rather, critical thinking instruction is modelling a procedure that will be new and unusual to many students, a procedure based on a reading technique that some of us undoubtedly do, some of the time—but can't guarantee we can teach by the methods we now use.

It is not obvious that the reading techniques that students have developed in other courses can appropriately be applied to reading for critical thinking, since critical thinking may require an interpretation of a passage that relies less on the author's apparent intentions and more on the author's actual choice of words. Nor is it at all obvious that students need no instruction about Nietzsche, or driving accident statistics, or football, before they can correctly comprehend the examples set for them as tests of their understanding.

Consequently, reading for critical thinking requires a process which is not necessarily going to emerge satisfactorily from the sort of reading instruction now provided in critical thinking, which still relies heavily on the expectation that students need only see how the experts interpret the examples chosen for discussion.

"Reading carefully" is far more than a matter of paying more conscious attention to any particular aspect of the prose being read. Among other things, it implies that the reader can and must meet standards of technique or interpretation appropriate to the task at hand.

In spite of the long-cherished belief that there are "self-evident" truths and

inferences which are obvious even to the untutored mind, the obviousness of an inference seems to be an empirical matter. Even if critical thinking is not discipline-specific, it may not be generic in any way in which we can tap it simply by expecting readers to be "careful" in doing something they would naturally do.

The onus of proof that it is possible to "read carefully" as a preliminary step in critical thinking is on the textbooks and instructors, not (as it now seems to be) on the students and their performance.

### Notes

- 1 Credit for this analogy goes to Norman Swartz, Simon Fraser University, whose comments and suggestions have been consistently helpful. His critical thinking course provided part of the stimulus and one of the examples for this paper.
- 2 *Reasoning*, McGraw-Hill Inc., N.Y., 1976, p. 2.
- 3 *ibid.*: this part of the omission from the previous quote.
- 4 Scriven, *op. cit.*, p.2.
- 5 R. Johnson and A. Blair, *Logical Self Defence*, 2nd. ed., McGraw-Hill Ryerson Ltd., 1983, p. 11.
- 6 See "Language and the Ability to Evaluate Contradictions and Tautologies", D.N. Osheron and E. Markman, *Cognition*, v.3, #3, pp. 213-226.
- 7 L. Baker, "Differences in the standards used by college students to evaluate their comprehension of expository prose", *Reading Research Quarterly*, v. XX #3, Spring 1985, pp. 297-313.
- 8 *op. cit.*; examples are given on pp. 302 and 305. Examples include:

During the *summer*... months most frogs hibernate...

Note that this would not be background knowledge for students in tropical countries.

<sup>9</sup> See, for example, C. Bereiter and M. Scardamalia, "Development of Strategies in Text Processing", in *Learning and Comprehension of Text*, H. Mandel, N. Stein & T. Trabasso, eds., (Erlbaum & Assoc., Hillsdale, N.J., 1984) pp. 379-406; R. Wagoner, "Comprehension Monitoring and What We Know About It", *Reading Research Quarterly*, v. 18 #3, 1983, pp. 328-348.

<sup>10</sup> *Logical Self Defence*, p. 11

<sup>11</sup> *op. cit.*, p. 12.

<sup>12</sup> *ibid.*

<sup>13</sup> F. Nietzsche, *Beyond Good and Evil*, translated with commentary by W. Kaufman, Vintage Books edition, 1966, p. 12. This passage makes Nietzsche's opinion of philosophers so clear that the translator was prompted to add a footnote softening the blow:

Nietzsche is thinking of the "great" philosophers. Now that there are literally thousands of "philosophers", these tend to be more akin to their colleagues in other departments than to the men discussed here.

<sup>14</sup> *Logical Self Defence*, pp. 4-11.

<sup>15</sup> Mayfield Publishing Co., Palo Alto, California, 1986.

<sup>16</sup> Prentice-Hall, Englewood Cliffs, N.J., 3rd. ed. 1986.

<sup>17</sup> Taylor, *op. cit.*, p.viii.

<sup>18</sup> *ibid.*

<sup>19</sup> *Reasoning*, p.13. There appears to have been no teachers' guide to this text; there is no indication in the text itself how an instructor was to use the tests as "diagnostic tools".

<sup>20</sup> Philosophy 001, Simon Fraser University, Fall 1984.

<sup>21</sup> Assignment 10, question 1, November 26, 1984.

<sup>22</sup> Excerpt from "Cars Deadly For Teens", *Burnaby Now*, April 23, 1984.

<sup>23</sup> *Logical Self-Defence*, pp. 12-13.

<sup>24</sup> see, e.g., *Reasoning*, pp. 6-7.

<sup>25</sup> *Reasoning*, pp.12-13.

<sup>26</sup> Similarly, one of Scriven's multiple-choice comprehension tests is a passage about social change in South America, presented with no prior comments or indication that the reader should be even minimally familiar with South American economic geography: *Reasoning*, Quiz 2-B question 4, pp. 25-26.

<sup>27</sup> Robert Ennis discusses the problem, in "Problems in Testing Informal Logic/Critical Thinking/Reasoning Ability", *Informal Logic*, vol. vi, #1, pp. 3-59; see especially pp. 4-6. Although he acknowledges the influence background knowledge will have on reasoning, Ennis disagrees with McPeck that this shows critical thinking must be tested only within particular disciplines (p. 5).

<sup>28</sup> Fraser Valley College, Continuing Education brochure, Spring 1987.

<sup>29</sup> S. Toulmin, R. Rieke, A. Janik, *An Introduction to Reasoning*, Macmillan Publishing Co., New York, 1984.

<sup>30</sup> *ibid.* pp. 64-65.

**Professor Moira Gutteridge, Fraser Valley College, Abbotsford Campus, 33844 King Road, R.R. #2, Abbotsford, British Columbia V2S 4N2.** □