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Commentary on Gratton

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Orientation

The teaching of critical thinking is Janus-faced, turned on the one hand toward everyday, contextualized reasoning within and without the schools and the academy, and on the other toward the study of patterns and heuristics of good reasoning. What the first face sees is a project of personal development and social reform, while the attitude of the second face is directed toward abstract knowledge making and dissemination. These opposed visages and their visions do not always make for a harmonious experience in the world of the critical thinking classroom. Indeed, when brought together in our classrooms, these two attitudes often confound our students and frustrate our best efforts to both improve their thinking while also conveying our rather technical subject matter. This tension is evident, I believe, in Professor Gratton's paper. In my remarks on that interesting essay, I want to suggest that while we might keep both faces on one head, we must remember that they do not face the same direction. If these faces are to see the same thing, one or both must use some refracting or reflecting device. Indeed we must bring Janus to want to see the same thing with both faces and to make the accommodations necessary to do so.

The danger is similar to one posed by G. J. Warnock. Early in his book *The Object of Morality* he speaks of the dangers of applying the tools of modern philosophical analysis to a concept as deeply embedded in daily life as is that of morality. Warnock characterized the danger through the metaphor of strapping on our new skates and gliding off onto unexplored and perhaps treacherous ice. While this is an apt approach to the dangers in much philosophical study, it only begins to suggest the difficulties besetting our undertaking in the critical thinking classroom. Let me not lose Warnock's good caution, but let me supplement, if not deepen it with some observations on earlier and contemporary America—that is the United States. Jedediah Purdy in his remarkable book, *For Common Things, Irony, Trust, and Commitment in America Today* begins by revisiting, with approval, the observations of Tocqueville and Emerson. The following has particular relevance to us here, now:

> At the same time, the American faith in equality changed cultural and intellectual life in a basic way: it did away with authority. Any American's opinion was as good as any other's. Like the belief in boundless possibility, the conviction of equal authority had a paradoxical result. Instead of liberating debate about ideas, politics, and the arts, it flattened them and drained them of interest. That everyone's opinion be equally worthwhile might seem from a distance to open up a free-for-all of argument and exploration. Up close, though, it meant that the American was disinclined to take anyone's opinion seriously: Why listen to *him*, talking as though he knew better than anyone else? Rather than burst into a newly egalitarian public life, people were inclined to shut up, close their ears, and turn their attention to something concrete, like making money.

> America, then, was characterized by a new kind of movement. In economic life and in the contest for social prestige and political power, the new nation was in constant motion, a hectic, disorderly scramble for goods that were never enough. Yet in culture, in intellectual life, and in serious discussion of public affairs, America was curiously static. There was a kind of psychological inertia, a disbelief that that kind of argument was really worth having. America was both constant upheaval and disconcerting stillness. Purdy (1999, 4-5)

Purdy goes on to say that this characterization fits not only The United States in its later formative period, but also at the present time. There is a lesson or two here for teaching critical thinking. I have nothing so grand as a sweeping socio-political viewpoint to offer. I have only the humble and humbling report that *my students* seem enough at home in Purdy's U.S. to be complacent in their alienation from reason and argument, complacent in their freedom from intellectual accountability, complacent in their aversion to reasons, and in the complete privacy of the saliencies of their epistemic and normative life. This is a matter of some significance as I think about how I will seek to develop these individuals as critical thinkers, move them into a faltering if not failed republic of reason, and integrate into their intellectual practices and dispositions some of the knowledge of the fields of critical thinking and argumentation.

How will I move these students from the alienated, casual, and associative thinking carrying them hither and yon on the winds of advertising and demagoguery, to personal accountability for close reasoning? How will I take them from the subordination of reason in the service of rationalizing wants and their pursuit, toward the tendency to and the respect for adverting to good reasons? How will I open the privacy of their saliencies of claim and decision to the normative model of complete publicity of epistemic and practical saliencies as conveyed in the abstract theories of logic, critical thinking, and ethics (including law, economics, and morality)? And once I have opened them to that public (as opposed to private) body of thought and thinking, how will I engage them in the difficult but rewarding pursuit of integrating these public standards and making them their own, appropriate to their contexts of study, life experience, and personal circumstances? These are the challenges I face in my classroom, and the challenges, which, if I am a little fortunate and a lot persistent, I begin to meet each year with that roughly 80% of my students who inhabit the cognitive space of Purdy's America.

My students seem hopeless then, while I and my assistants seem to be the ones filled with hope. Many of these students seem, if not fully alienated and cynical, largely consumed with consumption, ironically committed to irony, ideationally cut off from ideas, and only apparently accountable to each other through appearances of power, not through reason. It is with this understanding of my teaching situation that I approach Gratton's paper.

Now if Gratton is right, my troubles are compounded by virtue of the texts I have to choose from. Allegedly these texts mislead us into doing later what really should be done earlier, namely teaching skills of argument evaluation. In addition, the texts, or our practices of using them, induce a kind of fragmentation in learning that is frustrating to students as they seek to apply their learning to real life situations. Thus it is not enough for us to simply invert the order of some of the chapters we work though in our classes. We will not solve the problem by merely teaching evaluative skills first. We must also rethink how to teach the whole of what we are up to; we must seek out a path to teaching critical thinking more holistically. These are the two claims Gratton takes as his foci for the essay. He argues the first by giving several examples of skills taught earlier than evaluating arguments, trying to show that these are skills which, in some

way, presuppose or involve the evaluative skills we have not yet introduced to students. He argues the second by urging that "…clusters of interdependent skills and standards are involved in any competent performance of a complex intellectual task, and consequently, that we must teach them in such a way so as to avoid the fragmented learning of those skills." Gratton (2001, 13) Still, he claims this need for holistic pedagogy does not preclude introducing and practicing an individual skill "…in isolation from other skills with which it naturally clusters." Gratton (2001,13)

Thus it is not just that I am seeking to bring my students in from the cold of unreasoning American life, I also must do this working against the usual order of topics in the standard texts, and in such a fashion as to initiate these students into doing all at once the several things that make up good thinking. Falling on the heels of my experience of facing a room almost full of persons alienated from reason (and proud of it!), this seems to be bad news. But is it? Let me suggest that things are not as bad as Gratton suggests, or not bad in the ways that he suggests. There is some good news gained in reflecting upon Gratton's paper; and that is that he seems mistaken about the challenges facing us.

The Good News

Gratton calls our attention to several operations typically treated as relatively isolated skills: A) distinguishing premises from conclusion or claim in an argument, B) distinguishing arguments from what are not arguments, C) diagramming the flow of reasoning in an argument, D) identifying arguments using a principle of charity, and E) clarifying key terms in an argument. I have listed these not in the order Gratton takes them up, but according to my own purposes. In the case of the first three of these "skills," Gratton seeks to show that their employment calls for an appreciation of the skills of evaluating arguments. That argued, Gratton goes on to illustrate and urge an alternative method of introducing the skills in question, a method involving the proper use of argument evaluation. In the case of the remainder of his targets, using a principle of charity and clarifying key terms, Gratton makes clear the heavy hand of context in critical reasoning, and proposes to show us the way to escape that pressure. I believe the good news is that the problems Gratton alludes to here under my labels of A)-C) are not so problematic as he suggests. Further, the problems alluded to under D) and E) are not quite the problems Gratton thinks they are and while there is reason for concern, it is not the concern he has. Let me move through these claims.

Separating Premises from Conclusion

Gratton urges that in order to separate out premises from conclusion, in a text consisting of two assertions (a) and (b), we must:

> "…do three things: evaluate the support of (a) for (b); evaluate the support of (b) for (a); contrast the support in each case; and identify the interpretation that results in the strongest support." Gratton (2001, 3)

The example he gives is "(a) The streets are very slippery. (b) Lynn should not ride her bike." Gratton (2001, 3) Gratton sees the task as one of *interpreting* someone's reasoning. Merely trying to place 'therefore" alternately between (a) and (b), (b) and (a) will not afford the student the sense of the reasoning needed to carryout the best interpretation. Why this is so is

not made clear. Of course, I can imagine a student of various perspectives so smitten with the power of norms in a fundamentally good universe that she sees *what should be* as the reason for *what is*. However, this is someone who already knows well enough how to separate out premise and conclusion. Her problem does not lie there; it lies in her thinking that prescriptions at *t* might give evidence for the truth of descriptions of a prior state of things at *t-1*. So what are we to say here?

To be sure, merely placing "therefore" alternately between the assertions in question will not do the job if the student is not familiar with the argumentative function of language and speech. But if *there is* that familiarity—one which all of my students seem to have to some extent (however slight), even if the student is not practiced in the use of that dimension of language, then what does the student need to do in order to get things in proper order? I agree with Gratton, that what is needed is a power of interpretation, a matter of coming to see that (a) is offered as reason for (b). But unlike Gratton, I take it that when we ask our students to interpret a bit of speech as an argument by trying the test of variously linking the assertions with "therefore," we are asking them to try to see the assertions in the order that would be most typically the order in which the students would think of them if asked to put them in a context wherein there was an argument being offered. We are trying to trade upon the students' past experience, not of assessing or evaluating arguments so much as experience in contexts where they have heard lots of arguments involving so-called "factual" and "normative" assertions. Once the students place them in such a context, we expect that they will "see" the assertions in the right relationship and, applying the definitions we have given them, they will be able to label the assertions in the best way. Or at least that is my assertion. And if the students cannot do this, then, like Wittgenstein in the *Blue and Brown Books*, I am tempted to seek out their past experience of arguments to normative conclusions, to make sure they have within their vocabulary the terms "premise," and "conclusion," and failing to find an explanation of their problem in one of these two places, to look for an extraordinary explanation such as the students believing in a normatively closed universe where "should be's" can guarantee "is'es."

But what are we to say of Gratton's procedure? My impression is that such a cumbrous approach might be availing. But this would be availing only for the student who knows how to relate assertions as premise and conclusion so that she might then be able to "evaluate the support of (a) for (b), and conversely. Thus Gratton's procedure might work, if it is unnecessary, but if it is necessary, it seems unlikely to be availing. The lesson here is not that we need a complex procedure, but rather that we might have to provide our students with a wealth of experience of the practice of arguments involving so-called "normative" claims. And if the students are so provided, we need to ensure that they are able to place themselves in those conversations so as to induce the Gestalt allowing them to interpret the relations of assertions in the proper order.

Distinguishing Arguments from Non-Arguments

Gratton also urges that distinguishing arguments from non-arguments calls for students to be able to assess or evaluate arguments. To get down to cases we should say that the contrast in question is that between arguments and explanations. And Gratton provides us with two "systematic approaches" to effect such contrasts. In the second of those approaches he urges that we simply ask students to, "(a) evaluate the reasoning as if it were an argument. (b) Evaluate the

reasoning as if it were a causal explanation. (c) Contrast the result. (d) Apply the principle of charity such that if the reasoning is a strong argument but a weak explanation, then we interpret it as an argument. However, if it is a strong explanation but a weak argument, then we interpret the reasoning as an explanation." Gratton (2001, 6) However, unless I am missing something, students would not be able to apply this technique if they could not distinguish arguments from explanations (how would they evaluate the reasoning as if it were an argument or a causal explanation), and if they can make that distinction, they need only imagine a communicative context, use their ability to distinguish argument from explanation and decide which they are dealing with in the imagined context for the specific case at hand. The context of speaker intentions, conventions, background knowledge of what leads to what and what counts as a reason for what in what circumstances—knowledge or belief common among speakers in the imagined context, as well as other features of the imagined context, will decide the matter, if it is decidable. If it does not go this way, then the problem lies with the features or the details of the imagined context, or else with the student's imagination of these, not with the lack of a systematic procedure. Of course, if we believe that any string of assertions inherently is an argument or an explanation (whatever that means), and we thus believe that the strings are one or the other *independently of context*, independently of the intentions, as well as perceptions of speakers, etc., then we might hope for a "systematic approach" to tell us which a particular string is. But just as surely, believing such things will lead us into grave troubles. And furthermore, if there were an argumentative or explanatory character inherent in assertions or sets of assertions, then what need would there be for invoking the principle of charity unless this character is always systematically hidden from view and, so, to be determined by interpretation in context. But if it is to be interpreted in context, I am back where I started.

The first of the approaches Gratton suggests urges us to initially concentrate upon what sorts of reason would "support the truth of the conclusion…" and "What kind of reason would help us understand why the conclusion is true?" Gratton (2001, 6) That much accomplished, we should go on to other parts of the procedure, but let me stop there. Note that the term "conclusion" is used in the first quoted passage as a term for the claim of an argument supported by evidentiary assertions. On the other hand, note that the term "conclusion" is used in the sentence quoted second as a term for the assertion stating the explanandum. But then, just setting up the procedure of this systematic approach would involve seeing some of the statements involved as assertions of claims and others as affirmations of the truth of explanada. Thus it would involve seeing the involved assertions as parts of arguments or parts of explanations. Now, granted that my students are that far, the question is what do they do next?

Gratton suggests that at this point we can think of examples of reasons for the assertion of the "conclusion" so understood in these divergent ways, and then compare these with the actual reasons given. "(f) If the given reason resemble[s] more the reasons that support the truth of the conclusion, then the passage is probably an argument; but if it resembles more the reasons that help us to understand why the conclusion is true, then the passage is probably an explanation." Gratton (2001, 6) But how are we to measure nearness of resemblance here? Since there is an indeterminate number of ways of expressing the same assertion, presumably the resemblance is not a syntactic matter. And then is it semantic? This first systematic approach has then become mired in the troubles facing the understanding of meaning in natural languages.

Short of getting into that mess what might my student do? Clearly she will have to try to determine the, or a, context for the alleged assertions, and by placing the assertions within that

context, try to come to see what speaker intentions, background knowledge, and the rest would suggest is the best reading for the string. At that point the question becomes which of these perceptions is appropriate to the context of the assertions. No "systematic approach," which after all seeks to free us from context will help my students at this point. But that is all right. If they see the demands of context, then they will see their way clear, but if they do not, we can supply a context for them, may we not? Or perhaps it is a secret whether or not the reasoning is argument or explanation? I have no such secrets in my classes.

Once again, what seems needed to apply this distinction is an appreciation of all but ordinary language, in this case, "reason for the truth of a claim," and "reason for the occurrence of what is spoken of in an assertion," along with a sensitivity to context. And, as I approach the task of familiarizing students with this distinction it is as a task of making clear where in their communicative practice they use what befits the label of "argument" and "explanation." Finding an absence of such experience I have my work cut out for me. But no systematic approach to the distinction is going to help. The good news is the problem Gratton speaks of does not exist. Of course the problem might exist if we wish the students to master a particular theoretical approach to such matters. But here we have come full up against a case in which Janus cannot see the same thing with both faces. No mirrors, no prismatic lenses will provide a single vision.

Diagramming the Flow of Reasoning in an Argument

The matter of interest here is separating dependent from independent reasons in the outlining of arguments. Gratton distinguishes three different procedures for making this distinction: the test of conceptual dependence, the test of supportive dependence, and the test of logical dependence.

The last of these tests I believe I understand, and in that case I agree with the author that we might separate out dependent from independent reasons by attempting to map the logical pattern of the reasoning involved. Gratton's contention is that doing this involves "evaluating logical forms," a set of skills typically taught after the mapping of arguments. However, it is not clear to me that the authors of the text books in question would welcome this procedure for outlining arguments and thus for separating out dependent and independent premises. Rather the textbooks with which I am familiar go out of their way to avoid employing logical patterns to accomplish the task of argument outlining. In doing so they are seeking to avoid presupposing something students have not learned and are trying to avoid begging the question about what logical form arguments might have. Thus I am not convinced that the test Gratton speaks of has real benefit.

Gratton offers two other tests, one relying upon the identification of the concepts in an argument's conclusion and then the location of these concepts in single (independent) or multiple (dependent) premises, and, the other relying upon the identification of the strength with which the conclusion is stated and then a check to see if individual premises could offer adequate support for a conclusion of that strength or whether each could do so only with others of the premises. I fear that the subtleties of individuating concepts and of measuring degrees of strength of conclusion and then comparing that with the strength of the support provided by premises (individually or together) elude me, or rather they elude me *unless* these are matters we can intuitively judge by virtue of our familiarity with the context of the arguments in question

and with the credibility lent by such premises to such conclusions within such contexts. Such contextual judgments I understand, to some extent at any rate.

We can judge the dependence or independence of some argument after we encounter arguments on like subject matters in the general contexts of the discussions at hand. When we hear others articulating and critiquing the strength and pattern of arguments of a type with those at hand, we learn what to attend to and what patterns our thinking might flow in. And then, with these similarities in view, we can see how the premises in question independently or together might support the conclusion in question. Gratton's tests would not be needed. To be sure, this is messy and has all the appearance of relying upon intuitive understanding of very complex matters. But perhaps that is just the way things are. Surely, the appeal to context free tests of the patterns of arguments will not sensitize students to the interpretive challenges facing them in outlining arguments whereas, in my experience, empowering the students to place the target assertions in a context that makes sense of them as arguments does help students to outline arguments and in the bargain it helps to separate dependent from independent premises

The good news here is that students sensitive to possible contexts and the practices of exchanging and critiquing reasons in these contexts will have some skill at outlining arguments. This skill can be brought out and put in the control of the student herself by showing it for what it is and by further practice with organizational patterns of arguments typically discussed in critical thinking textbooks. And, this can all be done independently of teaching natural deduction techniques, or sampling techniques, and the rest that usually follows.

Using The Principle of Charity

Gratton is in high form as he directs our attention to the use of the principle of charity to articulate and fill out an argument. It is here that he develops the material I set out above as the application of a distinction between premises and conclusion. Gratton says the following:

> The principle of charity is a reminder not to misrepresent someone's argument or explanation. Misrepresentation occurs when we criticize something that does not correspond exactly to what an author or speaker has stated or implied. In order to identify what is truly implied by a passage or a speech, one must be able to evaluate one's basis for claiming that an author's given statement implies a statements [sic] that we find questionable. Yet the assessment of implication usually occurs much later once the principle of charity has been described." Gratton (2001, 2)

But I wonder whether we can ever 'criticize something which corresponds exactly to what an author stated or implied'? Indeed, I wonder whether the principle of charity, or rather, whether principles of charity understood as guides to interpreting reasoning are at all tools calling for a *grasp of exact correspondence of meaning or implication*?

If I urge someone to put the best face on a bit of reasoning, I am not asking her to stay strictly within the limits circumscribing the author's reasoning—limits of meaning, evidence, background knowledge, precision, vocabulary, nuance, agenda of irony or earnestness, and the rest. First is it even the case that there are such limits? Problems with speaking of the limits of the meaning of an assertion are notorious. Second, how could we expect students or even the author herself to know these limits or even cogently speculate about them, if there are such? And third, what are we to do when it seems patent that the author was murky in her thinking and

a little lax in her logical scruples? If we are out to critique the author of the thinking, then the principle of charity does not apply. But if it does apply, then the call for its application is a call for improving the thought of the argument's author—a call I sometimes make to my students intending a useful exercise.

The main point I would urge here however is that using the principle of charity as a principle of interpretation of reasoning is always a matter of constructing what we are taking the author to be arguing, a matter of what, for purposes at hand, we are taking to have been argued. And depending upon the context--including our intentions and the expectations on us, those purposes will vary. Is it any wonder that our students are frustrated when we ask them to fill out or articulate an argument using "this" principle? Are they really being asked to show us that they can put together a cogent argument including the premises and conclusion the author articulated or hinted at and using the information available to the author in the context of the author's consideration of the issue at hand? Probably. But then why do we not just give them a specification of that context and information and ask them to make the best of the author's attempt at reasoning? Why do we not just give them the information they need, teach the points of fairness and of burden of proof involved in considerations of charity and ask for their construction of the matter? What is Gratton's point of striving for exact correspondence? Suppose I do not care exactly what the author's argument was, if there was an exact argument in mind—whatever that would mean. May I not just ask the students to work with a body of information, a set of premises, and a conclusion, and to reason to that conclusion as strongly as they can in the specified circumstances?

I must be careful here of course, since the point of adverting to the principle of charity might appear to be one of introducing students to a close and "literal" reading of the text of someone's reasoning. And this might be our concern because we want students to learn to pay close attention to what is said by the words of an assertion alone, shorn of context, and to begin to notice when an invalid or inductively weak argument so read could be made better by the introduction of another premise or two. But this enterprise can be carried on without the umbrella of practical respectability introduced by talk of charity and fairness. Charity makes sense in talking about reasoning in context and in trying to construct the best out of what the arguer seems to be saying in context. As such, it stands on its own, once students are sensitized to reasoning in context. It is something they can be brought to do without understanding the exact meaning or the logical form of the argument they are examining. But if our goal is to ready students to grasp inference patterns in preparation for syllogistic, or propositional, or predicate logic, the principle of charity is a different sort of device. It is a tool of the minimalist reading of premises and conclusion in the service of checking validity. Here theory seems to draw us away from context toward an Erehwon of the sorts of correspondences Gratton alludes to. Here theory clashes with practice. And Janus faces in two directions.

Clarification of Key Words

We seek to teach our students about types of definitions and about ways to tell when these are good or bad, as well as about vagueness and ambiguity. Gratton urges that this pedagogy by itself will not alert students to when it is necessary to clear up terms or phrases in arguments. He goes on to say that students need only clarify some terms in an argument, and that without being able to assess the truth or support of premises, the student will not know which these key terms

are. No doubt Gratton has a point here, but again, I wonder if the point has gone astray. If the student knows the reasoning in a discipline, she will know the weasel words, the ambiguities, the degree of vagueness which is appropriate and that which is not to be tolerated in stating a certain argument. But learning general, abstract or context free lessons about "the evaluation of the truth and support of reasons," lessons his example suggests are really about validity relationships, will not help the student identify words in need of clarification in a real argument. Only by being aware of the context of that reasoning will the student know the possible problematic terms and the burdens of clarification upon her. The good news is that students do not face the problem of learning abstract rules of argument assessment to help them see just when terms need to be clarified before their lessons on definitions, vagueness, and ambiguity have real value. These lessons will have value as soon as they are taken into a context where there is background knowledge of problematic terms and of the expectations of who is to clarify what, when.

Fragmentation

Gratton's final complaint concerns the need to teach reasoning in such a way as to avoid fragmenting the student's knowledge: "…they might develop some mastery of many specific skills, but they do not know how to orchestrate them when applying them to real-life situations." Gratton (2001, 1-2) The root problem is allegedly that "…clusters of interdependent skills and standards are involved in any competent performance of a complex intellectual task, and consequently, […] we must teach them in such a way so as to avoid the fragmented learning of those skills." Gratton (2001, 13) To remedy this problem of pedagogy, Gratton suggests teaching holistically, focusing on simple arguments and moving to increasingly more complex arguments. Gratton (2001, 13) The holistic approach is mediated by a series of questions students are to ask each time they encounter an argument, questions concerning: the identification of the conclusion, its strength, the identification of the premises, the connections between premises and conclusions, the clarification of key terms, the filling out of enthymematic argument texts, the identification of the strength of the premises, the identification of relevant assumptions, the consideration of counterevidence and arguments, and the final assessment of the probability of the truth of the conclusion in light of the preceding. (p. 14) In other words, starting with small or simple arguments and progressing through more complex ones, students are to ask all of these questions simultaneously or seriatim, and thus practice the clustered employment of skills acquired in isolation.

Although I wish to endorse the concern to practice students in holistic analysis and thinking about thinking, nevertheless I must part company with Gratton on how this is accomplished. I am puzzled how our students (or we, for that matter) are to ask and answer these questions focused all at once on an individual argument. And if the reply is no, the idea is to answer them seriatim, then where have we departed from the fragmented application of fragmented learning allegedly so frustrating to our students?

There are two problems here. First, as we all know, sometimes we need to proceed in a fragmented way, for example, in translating a tricky bit of natural language into standard form, and then setting that up in some mechanical device to check validity. Or sometimes we need to very methodically or deliberately check a claim's credibility by running a complex text through, as it were, a checklist of the rules for appropriate and credible appeals to authority. Or again, causal analysis sometimes will involve us in slow piecemeal checking of possible connections.

This is called experimental thinking, or empirical research, or modern science. So desirable holism cannot amount to doing everything at once all the time. How much we do at once, and in what way will depend on the problem at hand, and the context of inquiry in which the critical thought is undertaken, as well as the experience level and sophistication of the thinker, and the methods of inquiry available and sanctioned within the context of inquiry.

Secondly, the point is that "in real-life situations" arguments do not occur independently of the intentions of inquirers and their critics, independently of standard methods of inquiry and strategies of approach, independently of appropriate sequences of steps including a double checking of what knowledge is available. That is, "in real-life" arguments do not occur out of context. And it is ignorance or lack of concern about those contexts that plague my students and leave, for them, skills learned in isolation in the further condition of frustrating fragmentation. In other words, the real problem of fragmentation I encounter is one of fragmenting thought by isolating arguments from their place in the life of thinkers, that is isolating arguments from their lived context of inquiry and its argumentation. We seek to fracture thought in order to design fool proof recipes for our employees to follow as they provide the services the marketing experts have told us consumers like. We seek to fracture thinking in order to design foolproof recipes for making ethical decisions about what campaign contributions and other largesse our politicians may accept. We seek to fracture thought so that we might provide foolproof protocols for our lab technicians to follow, and so on. And we seek to fracture thought in order to design foolproof procedures for our students to follow to check validity, or check initial credibility of a claim made without argument, or to check credibility of a source, or to check for a causal connection, or to check for a hasty generalization, and the rest. And in every such case we have first fragmented thought by abstracting from the lived context of concerns, dangers, and rewards that real thinking faces. In the bargain, we leave students puzzled about how to apply our theories, we leave them irresponsible in the face of would-be algorithmic procedures for "thinking through " some problem—a problem we have separated from real life motivations and so compounded the student's irresponsibility. And we do this all in the name of sharing with them our knowledge of the intricacies of the theory of thought, our abstract grasp of good thinking, even while we urge them to apply what we teach in their other classes and in their everyday lives. This is all a case of what I call the Humpty-Dumpty Problem in philosophy. We place the fragile egg on the wall and then push it off breaking it to bits so that we might put it back together again. But what results is never the same as what we started with. And that is the point. We fragment reasoning (in part by abstracting) reasoning, thereby rendering it alien to thought in context, and then we tell our students to take the result to real-life contextualized thinking and put it to work. Why are we surprised at so many of our students having so much difficulty in application? If we oppose two faces on Janus, why should we marvel at his confusion?

The good news is again that the problems Gratton alleges are not problems. Frustration and inability to think in "real-life," that is, in addition to thinking in our classrooms, by the application of the isolated skills we have contrived and taught, is due to fragmentation of thought. And we are responsible for that. But the fragmentation is not as Gratton says, namely that when our students address arguments in "real life" they cannot string together the tools we have taught and apply them there. The problem is that there are in "real life" no arguments, no tools of thought, no strategies of thinking of just the sorts we abstract and teach in our classes. At least there are none unless the "real life" we refer to has come to involve the direct application

of some of these tools and strategies, for example, in the statistical analysis of sampling results or some other endeavor that is, by design, technical and all but logically pure.

The Bad News

But clearly this good news is bad news, for it means that what we need to do is contrive and teach not just abstracted understandings of good reasoning and its elements, but also we must help students integrate these abstract generalities into context, show them and practice them in the art of contextualizing these generalities of good thinking, nurture their judgment in this artful application, help them to go home again. The general lesson is the contextuality, historicity, and purposefulness of real life thinking. And that is a hard lesson to teach in itself, let alone doing so while ensuring that students become familiar with our abstract lessons about good thinking and then become adept at integrating these abstract lessons into the everyday, transforming them into good practices in context. I agree with Gratton that contemporary texts do not do this. Maybe John Dewey's book, *Logic: The Theory of Inquiry*, begins to do that. Maybe works on heuristics and planning and decision making in real-life situations would be useful. Indeed, why not add histories and biographies, and the texts of fields of applied knowledge, and, yes, the texts of theory lying behind and systematizing the science or technique related to that applied knowledge? And to be sure, we must then practice students in the real life applications of all this wonderful knowledge, practice them so that they learn the language of a context of thought or become adept in the ways and even the critique of the ways of a community of discussion. But now what have we done? We have gone too far, perhaps. Theory has become integrated with the everyday, but at what a price? Humpty has been gently coaxed off the wall and sent to explore and play in the world at the foot of the wall. But then what role have we left ourselves, and how can we play that role in a semester or a quarter course? Having sought judgment, if not wisdom for our students, how can we purvey that in a form the Dean will be able to sell to the budget officer? Indeed how can we package and deliver that as our course? Perhaps there are structural difficulties here as well as epistemic and conceptual ones. The good news is indeed bad news.

The Bad Good News

Our troubles do not stop there of course. Recall the material I introduced from Jedediah Purdy's study of the political scene in the United States. The problem is not just a matter of gaining, packaging, and delivering knowledge of good thinking that is sensitive to the context, history, and purpose of lived inquiry. In addition, the problem is one of teaching or conveying this knowledge to students so as to enable them to integrate their abstract grasp of principles and procedures with the actualities of every day situations and issues. Worse yet, we need to do this, as we would teach our students a game or other activity in which they will participate. We need to ready students to carry on, as Wittgenstein would say, but not to "carry-on" as they already do, rather to carry on with inquiry in everyday life, and with the project of leading a life informed by good reasoning. Next, we need to proceed in a way nurturing responsibility in the name of reason. Our students need to be brought closer to or furthered in their willingness to take a stand in their epistemic and normative lives, a stand based on a commitment to reason and the application of the standards and best practices of good reasoning, a stand made evident in their readiness and willingness to be accountable for their thought and their thinking. We need to

usher students into the practice and values of public reason, a realm where reasons are reasons because of their acceptance in a social union of reasoners. And we must take students there not just in the political realm, but also in every régime of their deliberate lives. And finally, we need to do our bit to empower students to live this life of a critical thinker in spite of the cynicism, irony, misology, partiality, complacence, truculence, and faith in power that they encounter in a world where having an attitude is a positive mark of distinction. And we are to do all this in a semester or a quarter? The good news is really bad, is it not?

The Good Bad News

No doubt, the reader who has come this far is ready to part company in the name of the compartmentalization of pedagogical responsibilities. Surely, it is not my responsibility to teach science, ethics, and the rest in addition to fallacies, definitions and so on? These are for other classes, other times, other instructors. And the impatient reader is no doubt ready to urge that we teachers of critical thinking have no business looking after the ethics, responsibility and empowerment of our students—at least not beyond the confines of our course assignments, examinations and so on. Surely I need not worry myself as a teacher with my student's responsibility in the larger world or with her general commitment to reason? But these are not such easy disclaimers to make, as might first appear.

Is it so easy to teach values of intellectual honesty such as come into play in determining and living up to burdens of proof, and the use of principles of charity, but not to teach or reinforce lessons of honesty about doing research in science or elsewhere, in other classes or in our work outside of school? Is it so easy to focus virtues to apply to only certain subject matters or to certain compartments within certain subject matters? This is a complex matter whose pursuit would take us deep into the philosophical and psychological study of dispositions and intentions. (For starters see, for example, Juarrero [1999] and Cilliers [1998].) Or again, is it so easy to teach our students to take our work seriously and to take responsibility for living it or at least trying, if we expect them to do this only in our classes and not even in the classes others teach in our academy? This promises a kind of childish game playing on the part of our students, I believe, not participation in a community of reason.

Further, can we so easily and crisply separate out our pedagogical territory from that of others in our universities? Is the work we teach separated from what students do in other classes so that their learning to write clearly has nothing to do with critical thinking, or their learning to perform analyses and controlled experiments in the natural sciences has nothing to do with clear thinking about inductive argumentation, or the appreciation of nuances of interpretation and attribution in the social sciences and the written arts and GIS studies have nothing to do with interpreting arguments and understanding persuasion, or the sequencing of steps in a development plan in a geography class has nothing to do with understanding hypothetical syllogisms or other serial reasoning? Do none of these have anything to do with our student's abilities in our classes and does our work with students not influence their work elsewhere? Of course there are such connections; of course there are such influences.

The bad good news is that the integration of theory and practice, the nurture of responsibility, and the empowerment of our students are part and parcel of our academic concerns, and especially so if we really are concerned to see these persons develop as thinkers in the everyday, that is, outside of our classes. But perhaps that bad news is really good after all.

The good bad news is that while we face heavy and complex responsibilities we are not feckless with respect to these. We have ways at our disposal. We can introduce students to problems of critical thinking within the body of rich texts of literature, science and the rest, providing them with a thick as opposed to thin sense of the contextualization, historicity, and purposefulness of critical thinking. For example, I have used plays of Sophocles, and Lorca, and tutored students in conducting "real life" problem research, all as occasions to motivate the practice and integration of the critical thinking theory I have tried to teach them. I have used stories by Conan Doyle and others to show thinking in context and to engage students in contexts where they might have had at best limited personal experience doing this. I have even fallen so far as to use documentaries on science and perceptual knowledge to lead students into understanding some of the contextual richness of checking sources, interpreting data, and understanding perspective as it is limited by mode of access. I plan to use feature films showing reason in context, in the face of attitude, and in spite of power and complacency, films such as *12 Angry Men*. We *can* practice students in relating the concepts we teach them to inquiry in everyday life, and also to their other classes. I now regularly assign "Application Exercises" consisting of explicating a concept or technique we have gone over, showing where this has applicability in another class and explaining how it is applied and helpful there, in that other class. I regularly ask students to apply to key terms they are learning in connection with other classes, knowledge of types of definitions and of their assessment, and part of that assignment asks them to comment on the appropriateness of the degree of vagueness of the definitions in question. We can easily engage students with written and film texts which promise to enrich their imaginations and their abilities to generate counterexamples, or to appreciate others' culture and to appreciate the need for epistemic and interpretive charity as we consider the arguments of others.

All of these things we can do, even as we turn our research projects more toward understanding good reasoning in context. Taking this turn does not preclude theory or the quest for universality. It only makes that theory and quest more difficult, more subtle, more interesting, and more rich. We can all do the sorts of things I have mentioned and even more as we construct and conduct our courses. We can work for smaller courses or restructure larger courses to ensure accountability between students and students and instructor and students. We can work for critical thinking across the curriculum as Perry Weddle and others have urged for years. We can write new texts sensitive to reasoning in context.

So, the really bad news is really good news after all. It is just that we must take seriously both of the faces of teaching critical thinking and try to devise techniques as well as a context where these two faces both share a common orientation and provide complementary visions.

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