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THINKING IN A DISCIPLINE:

AN ASSIGNMENT IN A CRITICAL THINKING CLASS

Matthew A. Fike

This paper reports on a challenging and effective assignment on thinking in a discipline that I gave during fall 2006 in my sophomore-level “Critical Reading, Thinking, and Writing” (CRTW) course at Winthrop University. Required of all students, the course follows Writing 101: Composition; and a multi-disciplinary course about the self entitled “The Human Experience: Who Am I?,” which is taught by faculty from a variety of departments and billed as “a course requiring a significant amount of writing." With a big time gap after the former and uneven writing instruction in the latter, CRTW students' writing skills range from remedial to highly advanced. The challenge for the instructor is obvious: how to create assignments that challenge and engage the best students without losing those who need basic-level writing instruction.

A reasonable compromise between rigor and accommodation is to give assignments that hover somewhere near the top of the difficulty scale but include multiple opportunities for students to develop and improve their work—in a word, staging. My assignment in thinking in a discipline requires that students put their projects through four stages: an exercise on thinking in their majors; a draft of a paper that uses the classical argument to explore the origin of their ability to think in a specific way about a key passage from their disciplines; a second draft; and (for some of them) a conference and a further revision for the final portfolio. The assignment relies heavily on the elements of critical thinking in Gerald Nosich's *Learning To Think Things Through: A Guide to Critical Thinking Across the Curriculum* (2nd ed.) and encourages connections to paired texts in the original iteration of the university's CRTW course: Francis Fukuyama's *Our Posthuman Future* and Matt Ridley's *Genome: The Autobiography of a Species in 23 Chapters*. I will describe the assignment in detail and illustrate it with an example from the English major—Hamlet's “To be or not to be speech.”

First, let us be clear about how Nosich's critical thinking manual relates to the assignment. He writes, “Learning to think from the point of view of a discipline is one of the most valuable outcomes a course in the discipline can

provide” (58). My course is not in anyone's “discipline”—there is no such thing as a major in critical thinking—but students start out by applying the elements of critical thinking to their major fields as a whole. Using Nosich's “visualization” (63-64), they imagine themselves on a journey down a walking path on which they encounter each element of their major fields—purpose, question at issue, assumptions, point of view, context, information, implications and consequences, conclusions, and alternatives. Nosich believes that “Critical thinking lives in questions” (33), and each element translates into a question. For example, one might ask, “What is the purpose of psychology?” Answering questions about a discipline as a whole is a necessary prerequisite for analyzing the origin of one's thinking ability about a passage within that discipline.

The next step is to find a passage that illustrates thinking in a discipline: students should mention it in the introduction and in the thesis and quote it fully in the background paragraph. Some students assumed that a one- or two-sentence quotation would be sufficient, and I had to drill into them the need for a passage of paragraph length, one that would take up most of a page. The passage must be controversial, not merely factual; and students must mention it—or some important concept from it—in every single paragraph in order to help unify the paper. I prefer one substantial statement, but my dance major who wrote about Martha Graham successfully linked a series of short quotations in order to achieve the required length and complexity.

Here is an example of a good thesis from a student's paper: “Although nature plays a role, I will argue that my ability to think as an Early Childhood Education major (as illustrated by [my analysis of] the passage in *Exploring Education*) is due mainly to nurture because of the influence of my mother who is a teacher in the Early Childhood field.” This thesis has the three components that I require: an “although” clause that anticipates objections, a main clause that mentions the passage and gives a controversial idea for which the paper will argue, and a “because” clause that anticipates arguments by giving a reason why. Moreover, it avoids a major pitfall—binary thinking—by saying that the student's thinking ability in her major “is due mainly to nurture,” not exclusively to nurture. Nosich calls the latter “all-or-nothing thinking”; I call it a fallacy of false dichotomy.

As students apply the elements, several potential glitches emerge, and here is how to address them. Nosich's order of the elements, in my opinion, needs revision, particularly for this assignment. First, I believe that students should begin with context and point of view, move on to question at issue and purpose, and then apply the remaining elements in any order that suits their passages' content. Second, my students had difficulty understanding, in particular, that there is only one question at issue in a passage, even if its author directly asks multiple questions. A question at issue is usually something that they themselves must construct; rarely is it neatly stated in the passage, all ready for extraction. A third and final problem at the passage-analysis stage is devoting a full paragraph to each element; it is important to tell students to address each element in a single sentence (two at most).

Students—especially those who slighted the preliminary exercise—also had difficulty with the next section, the bridge paragraph. It is essential to have them do the exercise because they must now establish a relationship between disciplinary thinking as a whole and the thinking that they just did in applying the elements to their passages. I encourage them to imagine that relationship by using circles—either partially overlapping circles or one larger circle for the whole discipline and a smaller circle inside it for the thinking that they do when they analyze their passages. What emerges from the intersection is a key concept about thinking that ought to animate the rest of the paper and can even be built into the thesis. If multiple types of thinking emerge, students should acknowledge the range of possibilities but select just one for further discussion in the argumentation section. Here are some examples from actual papers: in dance, emotional thinking or concentration; in early childhood education, psychological thinking; in business, long-term thinking or thinking about networking; in interior design, creative thinking; in music therapy, thinking about healing; in Spanish, cultural thinking; and in international relations, thinking about problem solving. It helps to force students to fill in the blanks in the following sentences: “Thinking in [your major] is _____ thinking. [Your major] involves thinking about _____.”

I come now to the most frequent error that students made: arguing about the wrong thing. They were supposed to argue, object, and reply about the origin—in nature and nurture—of their own ability to think in a discipline,

not about why they decided to major in it and certainly not about the discipline in general. In other words, they were supposed to think about the relationship between their own genetic inheritance and the experiences that they have had in relation to it—about how ability builds a superstructure on a base of aptitude. It takes multiple drafts and conferences to get all of this right, and so it is with objections and replies as well. Students will try to devote only a single sentence to objections. Instead, they need to spend a whole paragraph or more poking holes in the arguments and then offering the alternative, in that order. Objections must object directly to arguments and must state why they are weak. Then, if the argument favors nurture, they may introduce an alternative in favor of nature. A similar temptation to brevity bedeviled the reply paragraph, which consists of concession and rebuttal. One student's concession was five words: “These objections are pretty realistic.” The concession is structurally present; it just does not say anything. “Why,” I asked the student, “are the objections ‘pretty realistic'? Say more.”

Although, with the completion of the replies, students have now demonstrated their thesis statements, they still have one major task to accomplish in the conclusion: namely, making a connection to Fukuyama or Ridley. Regarding “the roles of heredity and culture”), or “nature versus nurture” (Fukuyama 20), Fukuyama's Chapter Two, “Sciences of the Brain,” and particularly its section on “The Heritability of Intelligence” can suggest connections to students' majors. More to the point, although Ridley's *Genome* is no longer required reading, I quote his conflicting statements on nature versus nurture in my paper assignment sheet. Nature, he says, is not a factor: “Everything they [human beings] do is the product of free will, giant brains and brainwashing parents” (91). Nature and nurture cooperate according to another statement that was especially helpful to my two dance majors: “The brain, the body and the genome are locked, all three, in a dance” (148). A few pages later, Ridley doubles back in the following ambiguous statement: “So the brain is in charge”; he means through its release of hormones (151). Two paragraphs later neither nature nor nurture seems relevant: “The truth is that nobody is in charge,” Ridley writes (151). Further on, he seems to prefer nurture over nature when he says, “The question is not whether nurture has a role to play...but whether nature has a role to play at all” (217). His final statement is that nature and nurture seem reconciled in “the delicate balance between cultural and genetic evolution” (222). As these quotations indicate, the relationship between nature and nurture in Ridley is up for grabs, and my students' job is not only to ask questions about the origin of their ability to think in their major disciplines but also, in their conclusions, to relate their answers to something from Fukuyama or Ridley. For example, which one of Ridley's quotations most nearly expresses the truths that they have discovered about their thinking ability?

In the remainder of this essay, I will illustrate my assignment by discussing how to do it in connection with a passage from our own discipline: Hamlet's most famous soliloquy. At the exercise stage, I would note, for example, the different types of thinking that we do as English teachers—linguistic, historical, philosophical, psychological, theological, analytical, synthetic, theoretical, mathematical, scientific. The list is potentially endless because literature touches virtually every part of the human experience.

I would move on to Hamlet's soliloquy itself and apply the elements of critical thinking (below, in italics). Students must actually quote their passages, and I will now quote mine. Hamlet states:

To be, or not to be, that is the question:

Whether ‘tis nobler in the mind to suffer

The slings and arrows of outrageous fortune,

Or to take arms against a sea of troubles

And by opposing end them. To die, to sleep—

No more—and by a sleep to say we end

The heartache and the thousand natural shocks
That flesh is heir to. ‘Tis a consummation
Devoutly to be wished. To die, to sleep;
To sleep, perchance to dream. Ay, there's the rub,
For in that sleep of death what dreams may come,
When we have shuffled off this mortal coil,
Must give us pause. There's the respect
That makes calamity of so long life.
For who would bear the whips and scorns of time,
Th' oppressor's wrong, the proud man's contumely,
The pangs of disprized love, the law's delay,
The insolence of office, and the spurns
That patient merit of th' unworthy takes,
When he himself might his quietus make
With a bare bodkin? Who would fardels bear,
To grunt and sweat under a weary life,
But that the dread of something after death,
The undiscovered country from whose bourn
No traveler returns, puzzles the will,
And makes us rather bear those ills we have
Than fly to others that we know not of?
Thus conscience does make cowards of us all;
And thus the native hue of resolution
Is sicklied o'er with the pale cast of thought,
And enterprises of great pitch and moment
With this regard their currents turn awry
And lose the name of action.—Soft you now,
The fair Ophelia. Nymph, in thy orisons

Be all my sins remembered. (3.1.57-91)

As for analysis of Hamlet's soliloquy, the *context* is a murder mystery in which Hamlet is planning, at this moment, to trick Claudius into revealing his guilt with the help of the players. The *point of view* is that of a young man whose psychomachia involves competing imperatives such as mother and father, reason and emotion, duty and caution, scholar and warrior, womanliness and what one critic calls “tough, fatalistic cool” (Rogers-Gardner 35); and whose psyche is beset by melancholy, acedia (spiritual torpor, indifference), and depersonalization (a disconnection from his feminine side). The *question at issue* is not the one that Hamlet himself asks: Why would one stay in this life and put up with “fardels” (burdens) when suicide is an option? Nor is it the question that students often assume it to be: namely, should Hamlet kill himself? It is instead a more general question that is not directly stated: “What course of action should one take in the face of worldly obstacles?” In other words, as the absence of the pronoun “I” indicates, the question is less personal and practical than it is general and philosophical. His *purpose*, then, is to analyze the options or *alternatives*, which are these: endure passively, confront actively, or commit suicide. In exploring these alternatives, Hamlet has some *information* to go on: everyone ages, rulers oppress, the prideful insult, love stinks, law is slow, administrators insult, and merit does not always mean advancement (he sounds like a typical academic!). Although he *assumes* that he cannot tell the nature of the afterlife, the passage does identify competing *alternatives*: when we shuffle off our “mortal coil,” as a snake sheds its skin, the resulting state may be the end of individual consciousness or a state in which “dreams” may be more problematic than the worldly troubles left behind. If, as Hamlet mentions in a previous passage, God has “fixed / His canon ‘gainst self-slaughter” (1.2.132-33), then the *implication and consequence* of suicide would be damnation, which is also a key *concept* in Hamlet's soliloquy, along with conscience and sin. His *conclusion*—and here he finally switches from third person singular to first person plural, presumably in order to include himself—is that “thought,” by which he means over-analysis, prevents a thinking person from taking his own life or taking arms against his “sea of troubles.” The soliloquy ends with this statement to Ophelia, which Hamlet probably says under his breath: “Nymph, in thy orisons / Be all my sins remembered,” which *implies* his own Claudius-like inability to pray.

If this analysis of Hamlet's soliloquy were part of my own paper for critical thinking class, I would then write a bridge paragraph in which I would point out the overlap between thinking in the English discipline and the thinking involved in analyzing the passage. Both involve theological thinking and, in particular, eschatological thinking—that is, thinking about the final things (death, judgment, heaven, and hell). Does my ability to do such theological thinking stem more from nature or from nurture? I would argue for nurture over nature because of factors in my personal background and because of my study of the *ars moriendi* tradition, which includes Renaissance literature, contemporary near-death experiences, and other instances of psychic functioning. The answer might go something like this. I would assert that nurture is in the ascendant, and I would make an argument that such things as the following contributed to my ability to think theologically and eschatologically: an upbringing in a religious family, regular church attendance for most of my life, study at a religiously-affiliated liberal arts college, regular Bible study for many years, a life-long belief in God and the afterlife, extensive reading in eschatology, the death of family members, and so forth. In other words, I would assert that nurture has brought me to the point where I can analyze Hamlet's famous soliloquy. But then I would launch my objections. First, I would chip away at the arguments: one does not have to *be* religious in order to do theological thinking; an atheist could analyze Hamlet's soliloquy as adeptly as I just did. Although this fact does not mean that my background had no impact whatsoever, it does suggest that socialization and education may not be the most fundamental truth about my theological thinking ability. Second, I would propose an *alternative*—the idea that, as a human being, I am predisposed by nature to look above and beyond the human condition to God and an afterlife. Third, I would suggest that having a father who is now a professor of English emeritus must have provided some kind of inheritance at the genetic level. I would have to concede that these objections have some merit: nurture does not give me exclusive access to Hamlet's eschatological musings, nature does indeed provide an aptitude for the development of the ability to do theological thinking, and I do have my father's thinking machine. But—and here is the rebuttal—even an atheist's theological discourse

develops in the realm of nurture through some kind of educative process involving language, aptitude is just a bare foundation in the absence of education and socialization, and my father's role in socializing me surely outweighs the influence of his genes. Therefore, the theological thinking that I do as an English teacher reflects ability built on aptitude. That is, nature provides a basis for nurture; nurture in theological thinking would not be possible without the biological brain's hardwiring and the human soul's yearning for the infinite. In conclusion, in my case it may be, as Ridley says, that “The brain, the body and the genome are locked, all three, in a dance.”

Whether the chosen passage is from literature or from some other discipline, my assignment invites self-reflection through comparison. Critical thinking thus helps us fine-tune what we know about ourselves; and the implications may help determine right from wrong or, in Hamlet's case, a course of action or nonaction. In fact, a possible revision of the assignment would have students focus on an ethical statement rather than one from a particular major and argue about the origin of their ability to do ethical thinking. I probably will not make this shift because the assignment, as just described, worked; and besides, a fifth of Nosich's book deals with critical thinking in a discipline. I will also probably stay with nature versus nurture even though one student reported in a portfolio cover letter that in her three semesters in college she had already written eleven papers about that issue. She was a little hard to please, but the vast majority of my students found my assignment about thinking in a discipline to be effective in helping them understand themselves better in relation to their majors. It was difficult for them to complete properly, but doing the assignment in stages resulted in some of the semester's most memorable papers.

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Matthew A. Fike holds a Ph.D. from the University of Michigan and is an associate professor of English at Winthrop University in Rock Hill, South Carolina, where he teaches critical thinking and Renaissance British literature. He has published a book on Spenser and is doing final revisions on his second book, a Jungian study of Shakespeare.

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