Deliberate Practice for Academic Writers
Part 2: Three skills for academic writing

Bryce Gessell
Southern Virginia University
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If you want to figure out whether someone is a clear writer, here's a test: give their work to undergrads to read. They'll figure it out for you.

I saw this test in action just this semester. In spring 2021 I taught a course on early modern philosophy and science. We started by reading Aristotle and Ptolemy on astronomy, then moved through Copernicus and Kepler to Descartes and Newton. We focused on concepts of motion and space, the interaction between physics and metaphysics, and the development of scientific laws.

Later in the course we read from two other figures: Émilie du Châtelet and Immanuel Kant. Du Châtelet (1706-1749), a French natural philosopher, wrote on many topics in physics and the philosophy of science. So did Kant (1724-1804), a German thinker. In fact, they both have important things to say about space and Newton's laws of motion. They dealt with many of the same problems, separated by about fifty years in time. They have a lot in common.

One thing they do *not* have in common, however, is the quality of their writing. Du Châtelet's is clear as crystal. Even in English translation it's concise, lucid, and engaging. Kant's writing is...not those things. It's atrocious. It's a bit easier in the original German, but even there it's really tough. The only way to read and understand Kant is to already know what he means, but that would require reading and understanding him. You can see the problem.

I've long known about this contrast between du Châtelet and Kant, but my undergrads reminded me again a couple months ago. We read du Châtelet and everyone loved her. They appreciated the clear explanations of problems and

forthright statements of her own views. She was one of our favorite authors in the course. It wasn't the first time my students have shown a preference for her, either. I've taught her work at three different universities, and every time someone in class has remarked about the clarity of her writing.

After du Châtelet we read Kant. We struggled through a shorter section of the *Critique of Pure Reason*, called the "Transcendental Aesthetic." The section is important and interesting but unless you already know that Kant is rejecting previous concepts of space in favor of his own position then you probably won't get it from the text. Then we read one chapter from his *Metaphysical Foundations of Natural Science*, and that was ever harder. One student summed it up by saying that reading Kant is like hacking through a rain forest with a dull machete. You have to give that amount of effort to make it through.

Reading these two authors this semester got me thinking about academic writing in general. I was most interested in how both du Châtelet and Kant could write about similar problems but do so in such different ways. They were both dealing with sublime philosophical and scientific issues, but one made my undergrads rejoice and the other made them weep.

The components of academic writing

I'm going to suggest a way of thinking about the different parts of academic writing. My division will help us understand the contrast between du Châtelet and Kant. More than that, though, the division will help us think about our *own* writing and where *we* can improve. I'll weave in some discussion of graduate school and practices of professional academics. Then, in the next post, I'll combine what I say here with what I said in the first one about deliberate practice.

I suggest that we can think of academic writing as consisting of three parts: disciplinary mastery, clarity, and writing habits. Disciplinary mastery involves knowing a field, managing sources, creating interesting arguments, and contributing to ongoing debates. Clarity involves the quality of the writing itself. Writing habits involve, among other things, how often you write, how much, and what you feel when you write, such as anxiety or calm.

Now let me be clear about the suggestion I'm making. I'm not offering a scientific analysis of the elements of academic writing. I am not saying my division is the only way to think about writing, or even the best way. There are other ways and some of them might be better. I am saying, though, that this division has helped me to better understand my weaknesses and strengths as an academic writer. It's helped me to see where I need to improve, and how I can do so. And it combines well with deliberate practice, which is the purpose of all these blog posts anyway.

As part of this division, we should see each individual component as its own skill. Disciplinary mastery is one skill, clarity is another, and writing habits are a third skill. I think of the skills as a character's stats in a video game: the character has a disciplinary mastery stat, a clarity stat, and a habits stat. The stats represent how good they are at different tasks, and the stat values can go up and down.

It's important to understand, though—and this is crucial for improving

writing—that *each stat or skill is independent of the other two*. That you have supreme disciplinary mastery does not mean that you are a clear writer. Your ability to write concise sentences does not mean that you understand the problems in your field or that you could generate an interesting argument about them. And high stats in both those skills do not mean that you write every day, or even at all.

Dividing academic writing this way helps us explain the difference between du Châtelet and Kant. Both achieved a very high level of disciplinary mastery—they both knew a great deal about their fields and understood the problems in and out. But du Châtelet was also a fantastic writer, while Kant was not. Her clarity stat was really high, while Kant's needed some buffs.[1]

You, right now, as an academic writer, have certain stat values for the three components of academic writing. These values are not fixed and will vary over time. If you are diligent and fortunate enough to stay in academia, your disciplinary mastery will likely see monotonic increase throughout your career. But the clarity of most academics *plateaus* early in their career and doesn't rise much after that, and some academic writers get *worse* as their careers progress.

For chronic stagnation in clarity I blame the structures and the incentives of academic professions themselves. Below I'll discuss the components of academic writing one at a time, along with how they relate to those structures and incentives.

Disciplinary mastery

Disciplinary mastery is the skill of knowing a field and being able to make meaningful contributions to it. This skill involves understanding major problems, knowing prominent positions, and discerning connections between areas. It also involves the ability not only to see fruitful possibilities for research, but to follow up on those possibilities with interesting, original arguments.

We'll use my own field as an example: neuroscience-related philosophy. Disciplinary mastery in this area requires that I know a decent amount about the brain and be familiar with methodological and conceptual problems within neuroscience itself. I also need to know things about the *philosophy* of neuroscience, such as different positions on what counts as an explanation. In the other direction, it's important for me to see how to apply observations about the brain to traditional problems in philosophy of mind and psychology.

Disciplinary mastery also demands that I *use* my knowledge of the field to make *original* research contributions. After all, we're talking about this mastery as a component of academic writing. In order to intervene in a philosophy of neuroscience debate, I have to know the debate and the positions well enough that I can say something *new* or *different* about them. If I can't do that, then I might understand some philosophical issues, but I don't have the right kind of mastery over them to write from an academic perspective.

When you write a paper, you use the skill of disciplinary mastery to synthesize other views and design an original argument. The mastery manifests

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[1] English translations nerf Kant's writing rather than buff it. In German, pronouns carry information about number, gender, and case of their antecedents, helping a reader disambiguate references to previous nouns. English has no simple way of representing that information.

in different ways, depending on the field. If you're a scientist, you manifest your mastery in conceiving experiments, running them, and analyzing the data. Your writing then relies on that mastery. In many parts of the humanities, you use your skill *while* you are writing—part of your disciplinary mastery *is* the skill of creating the paper.

Since this mastery is a *skill*, it can grow over time. You start out by learning how to structure a paper. Then you learn how to revise one. Then you learn how to create an argument that might convince someone. Then you learn to integrate more varied sources to give your argument wider scope, and so on.

Strategies for successful publication also belong to disciplinary mastery. Here's an example. Suppose you've written a reply responding to some other paper, but then you discover that the journal you hoped to submit to doesn't accept replies. You don't just throw the paper out, though—instead, you reframe your argument as dealing with a *pattern* or *family* of views in the field, of which the paper you are replying to is but one instance. The new frame transforms your reply from narrow to broad, and you're now making an argument with much wider reach that more journals would be interested in. The ability to take a paper in a new direction like this is a part of disciplinary mastery.

Most fields have informal benchmarks you can use to track your progress in this skill. The first few papers I sent to journals came back with comments telling me that the work wasn't very good. With help from mentors I started to turn the rejections into revise-and-resubmits. That's progress. I knew I was gaining even more proficiency when I started getting R&Rs on papers that no one else had ever seen at all. That's more progress—my disciplinary mastery has increased.

Enhancing disciplinary mastery is why people go to graduate school. Teaching students to master their discipline is the reason graduate school exists. You join a PhD program to learn *how* to be a philosopher, a literary theorist, a historian, or any kind of scientist. When people talk about "training" graduate students, they are referring to disciplinary mastery.

Most people who both remain in a field and give research some priority will see their disciplinary mastery increase over time. It is hard for your skill to plateau or regress when you spend most days in a week thinking, reading, and conversing about problems in your area. Even teaching-focused jobs spur this growth. I teach four or five classes per semester but my teaching prep and my students have pushed my understanding of my fields. After my recent early modern philosophy and science class, I know the original sources better than ever before.

Academic professions reward disciplinary mastery over everything else. Getting a job almost always requires having publications; getting tenure may require a certain number of articles with certain impact factors. This is the most important skill in professional advancement.

Clarity

The second component of academic writing is clarity. We might also just call this "good writing"—clarity is the ability to produce comprehensible, easy-to-

read prose. It has many aspects, such as word choice, sentence construction, and paragraph design. Concerns about audience play a heavy role in this component.

There is overlap between disciplinary mastery and clarity. Creating a convincing argument, for example, often requires both skills. They bleed into and feed off each other. We don't need a perfect separation, however, to think about them as different components of academic writing.

As we said before, while both du Châtelet and Kant had achieved disciplinary mastery, du Châtelet was much better at clarity. As a result, many readers find her much easier and more fun to read. We should not defend Kant on the basis that he was a "deeper thinker" and therefore an obscure writer. Modern Kant commentators achieve a level of disciplinary mastery equal to Kant's, but can explain his ideas in clearer language. Kant may have been able to do so as well, but either didn't have the skill or didn't care to.

The component of clarity tends to *travel well*—it transfers from field to field, or from audience to audience. Someone who writes clear and engaging prose in one area will probably be able to do it in another area. Good writing is good writing, no matter the subject or audience.

The travel-ability of good writing is one reason to consider it a distinct component of *academic* writing. A profound paper can have terrible writing, while a superficial one can be lucid and fun. They are different skills. Having a high stat value in one skill does not guarantee that you have a high value in the other.

No one goes to graduate school to enhance the clarity of their writing for the sake of clarity alone. Almost all writing programs teach writers to produce work *within a certain field or genre*. For many people, therefore, clarity is an *accompaniment* or *ancillary skill* that rides along with disciplinary mastery. This is a very important fact about the skill of clarity, and helps explain why so few academics make major progress in the quality of their prose during their careers. We'll return to this point in the next post.

Academia offers little reward for developing the skill of clarity. Within professional circles, the most you'll get for being a clear writer is an occasional thank-you from journal reviewers or a compliment from a colleague. Other than the poor undergrads who may have to read your work, no one cares. In order for someone to mention how bad a writer you are, your stat value must be so low that the writing obscures the disciplinary mastery or does serious harm to the ideas. Few academic writers are that bad, though you'll no doubt be able to come up with a few suspects right away.

Writing habits

The third component of academic writing is your writing habits. Sometimes people call these "writing practices." Your writing habits include how often you write and how much writing you produce in a day or week. These habits also include your mindset when you write: are you calm or anxious? Forgiving or fearful? Optimistic or self-deprecating?

Your writing habits help determine how much output you produce in both the short and long term. Like disciplinary mastery and clarity, good writing

habits are a skill developed over time. They are not some mysterious innate gift, only bestowed upon a chosen few. If you want to improve them, the first step is to start writing more. Stretch yourself to produce more writing than you did before; increase your word count or time spent per day, a little at a time.

Writing habits also travel well. The more you write in one area, the more you will feel like writing in another area.

Although a high stat value in writing habits is important for academic writing, this series of posts isn't about how to create better habits or new writing practices. I may take up the topic in another series of posts, but I won't have more to say about it here.

The components of fiction writing

I have suggested that we can divide academic writing into three components. The same division works for writing outside of academia as well—we just have to change what we mean by "disciplinary mastery." It was in trying to write within other genres, in fact, that I first began to understand the importance of mastery.

About a year ago I got interested in fiction writing, so I brainstormed some story ideas and came up with a plot for a novel. I had spent years working on clarity and writing habits so my stats there were fine. But as I started writing my novel it became clear to me that I had no idea what I was doing. I was cranking out words and chapters even though I could tell that the material wasn't very good. I *knew* it was bad, even as I was writing it, but *I did not know how to fix it*. I did not know what I was doing wrong.

Over the next few months I read some books on fiction writing and saw that I lacked the disciplinary mastery to create interesting fiction. I just did not have that skill. It didn't matter that I had some disciplinary mastery in another area—unlike my clarity and writing habits, my previous mastery did *not* transfer to my novel. Writing a good philosophy paper is nothing like creating a compelling adventure across 100,000 words. I realized that if I wanted to improve my fiction, I would have to start from scratch. I would have to gain disciplinary mastery in a new area; I couldn't just jump in and expect to be successful right away.

In fiction writing, "disciplinary mastery" is the ability to design and execute an engaging plot. It is the ability to *tell a fun story*. This skill takes *practice*, just as my disciplinary mastery required in philosophy and neuroscience. If my first novel is a mess or just boring, I won't be surprised. My first philosophy papers weren't good either. But if I keep pushing, and apply the principles of deliberate practice, I will get much better at fiction writing. Someday I will write a fun, engaging novel, and I will have a much higher stat value in the disciplinary mastery of fiction.

We can thus generalize the threefold division of academic writing into a way of analyzing every kind of writing. Writing in any field or genre is a process involving the three components of disciplinary mastery, clarity, and writing habits. Clarity and writing habits tend to transfer between fields. Disciplinary mastery does not. In addition, the exact nature of disciplinary

mastery depends on the field. For philosophy it involves knowing problems and positions, while for fiction it involves telling a fun story. For science fiction it further involves some technical knowledge and the ability to translate that technical knowledge into a plot or character, and so on.

Professionalization: a focus on disciplinary mastery

Let's leave off fiction and return to academic writing before finishing this post. Nearly all of graduate school, and most of "professionalization" for graduate students and early-career PhDs, focuses on disciplinary mastery. Graduate training *is* training in disciplinary mastery; entire fields are built around enhancing it, and graduate students get almost no training at all in the other two components of academic writing. In most cases, there is little support or reward for developing excellence in the other areas.

I think the overriding concentration on mastery is bad. While disciplinary mastery should be the major focus of graduate school, it shouldn't be the *exclusive* focus.

How do academic writers improve in the skill of clarity, though? In the next post, I'll combine what I've said here with the earlier post on deliberate practice. I will argue that the only way to make significant improvements in clarity is to get deliberate practice. I will explain what that practice looks like. Moreover, I will argue that academic writers should *want* to make significant improvements in clarity. They owe it to both their ideas and their audiences to become the best writers they can be with the skill of clarity.

Conclusion

In this post I've divided academic writing into three components: disciplinary mastery, clarity, and writing habits. Disciplinary mastery is the ability to understand a field and make meaningful contributions to it. Clarity is the quality of the writing itself, and writing habits are how often and how healthily you write.

Graduate school, professional organizations, and the structure of most academic fields orient around improving disciplinary mastery. There are far fewer incentives to improve at the other two components.

Nevertheless, as we'll see next, we stand to make great gains in clarity when we apply the principles of deliberate practice.