

## **How to read scholarly works**

### **Mano Singham**

Most of us in our lives will be required to read a lot of stuff and it will take a lot of time. To become more efficient at it, it helps to realize that there are many types of readings, and that you need to adopt different reading strategies for the different kinds of documents you will encounter. The purpose of the readings will also vary. Sometimes you will read for the gist, sometimes for the argument, and sometimes for certain details. Your reading strategy has to be adjusted accordingly.

For example, you don't read a science textbook the same way you read a novel. (This may seem obvious but I am always surprised by the number of people who try to read such textbooks from beginning to end, just as they would a novel.) You don't read journal articles in the natural sciences the same way that you read articles in the history and philosophy of science.

In the case of science journal articles, expert readers tend to focus closely on the abstract, introduction, and conclusions, and much less on the background theory, methods, and even the data. When reading scholarly works in the history and philosophy of science (such as we encounter in my seminar course on the evolution of scientific ideas), the literature tends to take a particular form and it helps to read it with this form in mind. The form is as follows:

1. The author identifies the MAIN problem(s), explains why it is of interest, and why it is important to find a solution.
2. The previous solutions to the problem are discussed and reasons are given (in the form of evidence and arguments) why those solutions are unsatisfactory.
3. The author proposes a new solution to the problem and gives reasons (in the form of evidence and arguments) why the new solution should be accepted.
4. In making the author's case, other auxiliary problems will usually also be identified and addressed in the course of making the larger case.

So when reading, it might be good to try and understand them using the above framework. While the underlying structure of the argument will be similar, different authors will present it in different sequences and styles, so these papers usually require several readings before the answers to the above four questions become clear. It takes a while for us to become comfortable reading papers this way, and practice helps.

This brings me to the notions of how you respond to the things you read. In academic discussions, we place a high priority on first understanding what the author is trying to say, to try and see the world through the author's eyes. This does not mean that we have to agree with the author. But if you disagree with the author's point of view, you need to state how your conclusions differ from the author's and why. This can be done negatively (by pointing out flaws in the author's reasoning, or challenging the validity of the evidence presented) and/or positively (by presenting a different line of reasoning and contrary evidence, and arguing as to why this new approach is superior.) In other words,

you yourself have to go through the above four steps for your argument to be taken seriously in academic circles.

Notice that you usually have to conform to the canons of evidence and argument that are accepted in that particular field. For example, in physics, evidence usually means experimental data or observations but in the history and philosophy of science, evidence does not necessarily mean data or experimental results or surveys, though these are not excluded. Scholars in the latter field (such as Karl Popper, Thomas Kuhn, Imre Lakatos, etc.) use the historical record, the ideas and writings of other authors, and appeals to everyday experience as evidence in structuring their arguments.

It is important to bear in mind that just saying that you do not agree with the author's point of view does not carry much weight in academic discussions. However outrageous the author's conclusions might seem to you and however strongly you might disagree with them, you cannot assume that that is enough to discredit the argument. You still need to criticize it using the conventions of academic debate.

Criticizing the author's style (by saying that the author is making his or her case badly or even offensively) is fine as far as helping you develop your own distinctive writing style, but is not sufficient as an argument against the author's ideas. You still have to address the substantive content of the writing.

Trying to understand the author's motivation can also help in understanding the structure of the argument, but just because the motivation is not agreeable does not automatically make the author's arguments invalid. For example, it seems clear that Karl Popper wants to define science in such a way that it excludes the central ideas of Marx or Freud or Adler. Popper seems to want to protect the prestige of science and, for some reason, dislikes these particular three fields of study and objects to their supporters claiming scientific status for them. Those who would like any or all three subjects included as part of science might dislike his motivation, but that does not automatically make Popper wrong. To challenge him, you will need to show why his definition of science does not work, propose another definition that meets your purposes, and provide evidence and arguments to persuade the reader to prefer your definition over Popper's. Again, you have to go through steps 1-4 above.

In short, to become better readers, we need to understand the modes of scholarly discourse in each discipline, the purpose of the reading, and use that knowledge to adjust our reading (and writing) strategies and styles accordingly.