Warrants

- 1. We use proverbs to justify many kinds of reasoning: cause and effect (Haste makes waste); rules of behavior (Look before you leap); principles of reasoning (One swallow does not a summer make). But such proverbs are not our only examples of everyday warrants. We use them everywhere: in sports (Defense wins championships); in cooking (Serve oysters only in months with an "r"); in defnitions (A prime number can be divided only by itself and one); even in research (When readers and an error in one bit of evidence, they distrust the rest).
- 2. Advanced researchers rarely state warrants in their reports, because they assume that their readers know them, and so stating them would seem condescending.
- 3. No biologist would ask, What makes DNA relevant to measuring re- lationship?, so no biologist would offer colleagues a warrant jus- tifying its relevance. If, however, a nonbiologist asked that ques- tion, a biologist would offer a warrant that other biologists take for granted
- 4. There is another reason academic warrants are harder to grasp than proverbs: they are usually phrased less explicitly. Most prov- erbs have two distinct parts, a circumstance and its consequence: Where there's smoke, there's are. But we can also compress those two parts into one short statement—Smoke means fire—some- thing that we rarely do with proverbs but that specialists often do with their warrants.
- 5. If someone objected that he did not see the relevance of the reason to the claim, the person making the argument would have to justify it with a warrant.
- 6. But now she must ask herself >ve questions before her readers do:
 - 1. Is that warrant basically true?
 - 2. Is it prudently limited?
 - 3. Is it trumped by a competing warrant?
 - 4. Is it appropriate to this >eld of research?
 - 5. Are the speci>c reason and claim good instances of the gen- eral warrant?
- 7. You may think your warrant is true and prudently limited, but is it the best warrant? Some warrants seem to contradict each other: Out of sight, out of mind and Absence makes the heart grow fonder. Which is true?
- 8. Here it gets very complicated. Even if you're con>dent that your warrant is true, limited, superior, and appropriate, you must also be sure that your speci>c reason and claim are good instances of the general circumstance and consequence of your warrant, a matter that has vexed logicians for two thousand years.
- 9. When readers think that both a warrant and reason are true, and that the speci>c reason and claim are good examples of the war- rant, they are logically obliged at least to consider the claim. If they don't, no rational argument is likely to change their minds.
- 10. To challenge those warrants, you have two choices, both di;cult: (1) challenge the reliability of the experience; (2) >nd counter- examples that cannot be dismissed as special cases. To challenge the experience, you have to tackle readers head-on, rarely an easy argument to make. Choose the second strategy when you have good

counterexamples. You can then argue for exceptions without directly contradicting the experience or reasoning of your readers.