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Commentary on Ennis

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In Response to: Robert Ennis's *Qualified reasoning Approaching Deductive Validity*

Robert Ennis considers a class of arguments whose major premise contains a "qualifier" such as "usually" or "rarely," and whose conclusion is similarly qualified. I have slightly abridged his examples:

- Raccoons rarely attack humans. Here is a raccoon. Therefore, it will probably not attack you.
- Peterson is a Swede. Scarcely any Swedes are Roman Catholics. So almost certainly, Peterson is not a Roman Catholic.
- 99 out of 100 Frisian lifeguards can swim. Feike is a Frisian lifeguard. So it is probable that Feike can swim.

Ennis thinks these examples are not deductively valid, contrary to the views of Plantinga, Toulmin, and others (myself included—see Yanal 1988, 285-86).

Ennis's argument is two-fold. (A) He says that counterevidence—for example, that the raccoon is rabid, that Peterson lives in a town that is largely Roman Catholic or that Feike has been placed in his position because of his political connections rather than his life guarding abilities—would make their respective conclusions *im*probable. (B) Ennis says that the denial of the conclusion in qualified reasoning would not contradict the premises.

Regarding (A): The counterevidence, such as the apparent rabidity of the raccoon ambling across the yard, is an additional observation *but not a premise in the argument*. If we add it to the argument—"Yet the raccoon that is ambling across the yard appears rabid, and rabid animals are prone to attack humans"—we have evidence that contraindicates the conclusion that the raccoon will probably not attack. *Then* that conclusion will not follow, deductively or inductively. But now we have another argument.

Notice that counter-evidence does not invalidate incontrovertibly deductively valid arguments. I argue, "All swans are white, and right around the corner from us is a swan, therefore it is white." But turning the corner (in Australia) we are surprised to find a *black* swan. This does not render the original argument deductively invalid, though it renders it unsound, as present evidence shows it to have a false premise. Still, were its premises true, its conclusion must be true.

Ennis, I think, confuses what we know to be true with what a given argument establishes. "No whales are mammals, Moby Dick is a whale, therefore Moby Dick is not a mammal" is deductively valid, though we know the conclusion to be false. Suppose I am an unscrupulous medical researcher, a kind of petty Cartesian deceiver. Involved in research on drug X and its effects on disease Y, I and I alone happen to come across a rare case in which drug X does not cure disease Y. However, I don't tell this to the rest of my research team. Their observations, which are numerous and concern patients of different ages, genders, and physical conditions, tell them that in all observed cases, drug X cures disease Y. As logical reasoners, they are entitled to draw, without fallacy, the conclusion that drug X always cures disease Y. This is a false conclusion, but that is not due to their logical reasoning which is inductively impeccable.

Regarding (B): Ennis claims that the denial of the conclusion does not contradict the premises. Here I do not understand why, exactly. He says at one point that he does not "want to challenge the deductive validity of arguments fitting the schema, 'Probably all A's are B's, x is an A; so x is probably a B', and variants thereof." However, it seems that the raccoon other examples *are* variants thereof. And since the argument schema is deductively valid by virtue of meaning, so are its instantiations. When we leave the qualifiers in the conclusion, the argument seems deductively valid in part by virtue of the meaning of the qualifiers themselves.

In a view Ennis attributes to Toulmin (and a view with which Ennis himself agrees—this is in the longer version of his paper), the qualifiers in the conclusions of the arguments we've been considering, qualifiers such as "probably" or "almost certainly," make the conclusion into, in part, a performative utterance that expresses the speaker's reservations. While the conclusion to the raccoon argument *reads*, "So the raccoon will *probably* not attack you," its *informational content* is, "So the raccoon *will not* attack you," the "probably" being something akin to tone of voice—as if one announced the conclusion hesitantly—but not properly speaking part of its informational content.

The raccoon argument thus read has an *un*qualified conclusion, and is not deductively valid. (If this is Toulmin's view, he should not have said qualified reasoning is deductively valid, but that's not Ennis's fault.) In any case, Ennis may have put his finger on the way we hear or understand qualified reasoning. Despite how it is phrased, we do not take qualified reasoning as deductive. We implicitly discount the qualifiers in the conclusion (though not the premises). We try to move from probable premises (premises with a certain high probability) to credible conclusions. We want the move—the reasoning—to be inductively valid or strong or whatever evaluative term you prefer. But we think of the conclusion as established with probability, without building the probability into the conclusion, so to speak.

To evaluate qualified reasoning, Ennis tells us, first, to temporarily eliminate all the qualifiers in an argument and replace them with the nearest universal quantifier. The unqualified result of the raccoon argument would then be, "No raccoons attack humans. Here is a raccoon. So it will not attack you." Second, we are to judge the unqualified reasoning that results, which of course is deductively valid. Third, we "reinsert the qualifiers," and fourth we "judge the original reasons for their acceptability." I will not comment here on the last step.

I assume that Ennis thinks that qualified reasoning that cannot be made deductively valid by removing its qualifiers is thereby fallacious. His intuition, perhaps, is that good qualified reasoning mimics forms of unqualified deductively valid reasoning. Certainly this is true of Ennis's examples, which mimic "Any A is a B, x is an A, so x is a B" or "No A is a B, x is an A, so x is not a B." However, not all good qualified reasoning mimics deductively valid form. Here is an example of qualified reasoning: "Nearly all observed Schnauzers have cropped ears, therefore nearly all Schnauzers have cropped ears." If we follow Ennis's advice and transmute the argument into something unqualified—"All observed Schnauzers have cropped ears, therefore all Schnauzers have cropped ears"—we end up with a deductively *in*valid argument, and Ennis, if I understand him, would tell us to stop right here: the argument must be fallacious somehow. The Schnauzer argument *might* be fallacious—it might be a hasty generalization (if too few dogs have been observed) or it might commit the fallacy of biased sampling (if no European Schnauzers have been observed, for several European countries outlaw the cropping of dogs' ears)—but then again it might be an inductively valid generalization (if enough dogs have been observed and at sufficiently varying locales). The argument should not be tossed out of court simply because it does not approximate a deductively valid argument form.

One last comment. Ennis claims that assigning numbers to qualifiers will not help in evaluation. It is true that the person who says that raccoons *rarely* attack people cannot come up with a precise probability factor, and so assigning a number is arbitrary: it would introduce a kind of false precision. (It is an open question, for me anyway, whether we really *know* these statements with vague qualifiers without knowing the exact numbers.) There is, however, at least one qualifier where numerical precision is necessary for evaluating the strength of the qualified reasoning. Consider the argument, “Most American college teachers have a doctorate, and Jane is an American college teacher, so Jane has her doctorate.” “Most” ranges between 51% and 99%, and depending on the numerical value, the premise establishes its conclusion weakly or strongly.

References

Yanal, Robert J. 1988. *Basic Logic*. St. Paul, MN: West Publishing Company.