Philosophy 1115 Homework Assignment #5 Solutions

April 18, 2016

Two Sets of Exercises from Chapter 2 of Skyrms

1. Page 17 of Skyrms, exercises 1–5.

   Argument #1 is the only deductively valid argument of the bunch. So, it is the strongest. Argument #3 is clearly the weakest. So, the question boils down to where to put arguments #2, 4, and 5 in the ordering of strength between #1 and 3. I think #5 ranks second in strength. Its premises involve (a) testimony from a reliable witness that supports rain, and (b) independent observations of events that are strongly correlated with rain. So, the question now becomes which argument — #2 or #4 — is the stronger. I'd say #4 stronger than #2. Argument #2 involves only a very small sample of three sports cars. This is very weak evidence (statistically speaking). Argument #4 on the other hand invovles testimony from an honorable man. [Not all honorable men are reliable, of course, but honorable men don't tend to make claims about others unless they are rather confident those claims are true.] Summing up, then, we have the following (intuitive[1]) ranking of argument strength here:

   – **Strongest**: Argument #1 (deductively valid).
   – **Second Strongest**: Argument #5, which involves both reliable testimony and independent observations of events that are strongly correlated with the truth of the conclusion.
   – **Third Strongest**: Argument #4, which involves testimony from an honorable man (about the character of another man).
   – **Fourth Strongest**: Argument #2, which generalizes from a (statistically) small sample of sports cars.
   – **Weakest**: Argument #3, which has a single, *irrelevant* premise.

2. Pages 22-23 of Skyrms, exercises 1–5.

   1. This argument is deductively valid. It has the following LSL form:

   $$\frac{\begin{array}{c} G \vee C \\ \sim G \end{array}}{\therefore C}$$

   This LSL form valid (this is easily shown *via* a full truth-table).

   2. This argument is inductively strong. If a good meal has always made someone feel better, then it is probable that this trend will continue.

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[1]Without precise inductive probabilities, it is difficult to give a definitive ranking. This is why I prefer to pose questions involving precise numerical inductive probabilities.

3. This argument is inductively weak. The fact that many great leaders have been crazy does not support the claim that *all non*-leaders are sane. [In general, the fact that many great leaders have had property *P* does not support the claim that *all non*-leaders *lack* property *P*. Another example: many great leaders have been tall. But, this doesn't support the claim that *all non*-leaders are short.]

4. This argument is inductively strong. If the premise is true, then only 1 case out of 29 will be a case in which the conclusion is false. So, assuming these cases are equiprobable, the conclusion has a $\frac{28}{29}$ probability of being true, *given* the premise. [Moreover, *antecedently*, the probability that someone is under 29 is *less than* $\frac{28}{29}$.]

5. This argument is deductively valid. The first premise says that there are no flying pigs. The second premise says that there are some flying horses. It follows that some horses are not pigs. Specifically, those horses that can fly must not be pigs (because if they *were* pigs then, by premise 1, they *wouldn't* be able to fly).