

THE EGG CAME BEFORE THE CHICKEN

Vagueness theorists tend to think that evolutionary theory dissolves the riddle "Which came first, the chicken or the egg?". After all, 'chicken' is vague. The idea is that Charles Darwin demonstrated that the chicken was preceded by borderline chickens and so it is simply indeterminate as to where the pre-chickens end and the chickens begin.

However, this line of reasoning only dissolves 'Which bird was the first chicken?'. Rather than implying that the chicken-and-egg question lacks a definite answer, contemporary evolutionary theory favors the egg. Given Mendel's theory of inheritance, the transition to chickenhood can only take place between an egg-layer and its egg. For a particular organism cannot change its species membership during its lifetime. It is genetically fixed. However, evolutionary theory assures us that organisms can fail to breed true. So although it is indeterminate as to which particular egg was the first chicken egg, we can know that whichever egg that may be, it precedes the first chicken -- whichever that may be. The

Thanks to some good eggs: Jesse Prinz, John Richardson, Mark Sainsbury, and David Sanford.

The consequence is implicit in David Sanford's "Infinity and Vagueness" *Philosophical Review* 84/4 (October 1975) 520-35. It is explicit in Roger

egg's precedence is a biological rather than a logical necessity. Given Lamarck's theory of acquired traits, the chicken could have come first.

One might object that there can be no first F if the onset of F-ness is indeterminate. But consider a son who gradually grows bald in just the pattern that his father balded. The father became bald before the son even though there was no clear first stage of baldness. Here's a closer analogy. A sculptor works on a marble block only during the mornings. There is no definite first day on which the block became a statue. However, we can say the block first became a statue during a morning.

Indeterminate states can be determinately related. One of the virtues of the chicken and egg question is that it reminds us of this internal structure. The riddle also shows that there is hidden determinacy to complement the more common theme of hidden indeterminacy.

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