The aim of this paper is to revisit the thesis that climate models contain value---laden elements. The thesis is defended against recent criticisms by Parker (2014) and Morrison (2014). Justin Biddle and Eric Winsberg (2009) have argued that value judgments inadvertently enter into climate models. Their line of reasoning is based on the argument from inductive risk (Douglas 2000, 2009) and in particular on the observation that all kinds of choices at all stages of the research process involve a trade---off between the risks of false positive and false negative error. Biddle and Winsberg argue that this applies to the construction of climate models. Our best knowledge of the climate system leaves considerable degrees of freedom in both structural and parametric model uncertainties, and the only non---arbitrary way of adjudicating these choices is to reflect on their effect on the balance of inductive risks. Wendy Parker (2014) has criticized this line of reasoning. In her view, the observation that many choices in model development are "epistemically unforced" does not justify the conclusion that social values inevitably fill the gap. Instead, she proposes that pragmatic factors (such as the easy availability of computer code for implementing certain kinds of physical process) often determine the otherwise underdetermined decisions in model construction. Margaret Morrison (2014) has advanced a very similar line of criticism. Parker and Morrison both assume that the main issue is whether non---epistemic value considerations are *intentionally used* in model construction. To emphasize a different perspective on the question of values in science, I introduce the concept of cognitive interest. Different methodological choices affect the cognitive interest that a given episode of inquiry serves. Even if an investigation was not intentionally designed to serve a particular cognitive interest, it will still do so. I will argue that the factual cognitive interest enshrined within a climate model (rather than the intentions of its creators) is the central concern. Given that the range of acceptable cognitive interests cannot be determined without non---epistemic value judgments, it remains true that climate models contain value---laden elements—and legitimately so.