"The Applicability Problem for Chance Explanation"

I argue it is not accident that we can both predict and explain the occurrence of (at least some) chance outcomes. For good reason, influential theories about the nature of chance explanation imply that our beliefs about the chance of an event should determine our degree of confidence in that event. Such theories face a problem that has so far gone unnoticed: so long as we are not justified in believing that beliefs about chances should determine degrees of confidence, we are not justified in believing that our best probabilistic theories provide explanations of any events that occur by chance. Adapting terminology from Salmon (1967), I call this difficulty the "applicability problem". I argue that any otherwise plausible theory of chance explanation faces a dilemma: either it is not a genuine theory of chance explanation or it faces the applicability problem. I conclude by sketching a novel approach to solving the applicability problem: perhaps the relationship between chance and degree of confidence is grounded by chance's explanatory role.