

Abstract: We develop and explore the implications of a model in which people downweight the use of their prior beliefs when updating based on new information. We view the model as an extension, clarification, and "completion" of previous formalizations of base-rate neglect. Although beliefs change too erratically, they are too moderate on average, and a person may even weaken her beliefs in a hypothesis following supportive evidence. Under a natural interpretation of how base-rate neglect extends to dynamic settings, a person's beliefs will reflect the most recent signals, will exhibit prediction momentum, and will not converge to certainty even after abundant information. We also demonstrate that BRN can generate effects similar to other well known biases such as the hot hand fallacy, prediction momentum, and adaptive expectations. We examine some implications of the model in settings of persuasion and reputation-building. We also discuss framing effects and other features intrinsic to base-rate neglect that hamper its formulaic incorporation of into economic analysis while generating some of its most important implications.