This article studies the effect of extreme catastrophes on expectations regarding the likelihood of future events by investigating the earthquake insurance take-up of Japanese households after the two costliest disasters in history. Direct loss experiences caused the strongest reactions to extreme catastrophes, while risk belief updates were a nationwide phenomenon. Sharing personalized information contributed to strong and persistent indirect experience effects. Both the availability bias and representativeness help explain the effect of past loss experiences. Furthermore, the gambler's fallacy, as proposed by Tversky and Kahneman (1971), had a strong effect after an indirect experience with a 1000-year earthquake.

(Nov. 13, 2017)