

**Ambiguity and compound risk attitudes: an experiment**  
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**ABSTRACT**

The identification of compound risk attitudes and ambiguity attitudes has recently received experimental support (Halevy, 2007) and been incorporated in decision models (Seo, 2009; Halevy & Ozdenoren, 2008; Segal, 1987). In these papers, (non) reduction of compound risk and (non) neutrality to ambiguity are two sides of the same coin. Non reduction of compound lotteries is this literature's explanation of Ellsberg type behavior.

We conduct an experiment measuring individual behavior under simple risk, under compound risk and under ambiguity. Our data find a partial link between compound risk attitudes and ambiguity attitudes, but undermine the equivalence between reduction of compound risk and ambiguity neutrality. Notably, subjects who reduce compound lotteries tend to exhibit Ellsberg type behavior. Moreover, we find that attitudes towards all three types of uncertainties vary systematically with likelihood levels.