Due in part to advances in neuroimaging techniques, investigators can now predict risky choices in individual humans on a trial-to-trial basis. I'll discuss two new directions of this work, both "down" to apply neuroscience tools to causally manipulate relevant circuits in animal models, and "up" to explore whether neural activity in groups of individuals can forecast the movement of option prices at the market level. Together, relevant findings may help link levels of analysis to inform a coalescing "deep science" of risky choice.