

# Split-Second Detection of Cooperativeness from Faces in the Trust Game

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**Abstract:** Economic interactions often imply to gauge the trustworthiness of others. Recent studies showed that when making trust decisions in economic games, people have some accuracy in detecting trustworthiness from the facial features of unknown partners. Here we provide evidence that this face-based trustworthiness detection is a fast and intuitive process by testing its performance at split-second levels of exposure. Participants played a Trust game, in which they made decisions whether to trust another player based on their picture. In two studies, we manipulated the exposure time of the picture. We observed that trustworthiness detection remained better than chance for exposure times as short as 100 ms, although it disappeared with an exposure time of 33ms. We discuss implications for ongoing debates on the use of facial inferences for social and economic decisions.