Damage to the insula is associated with abnormal interpersonal trust

Reciprocal trust is a crucial component of cooperative, mutually beneficial relationships. Previous research has suggested that the insula may be an important structure involved in judging and expressing interpersonal trust. Here, we investigate the role of the insula in reciprocal trust during the Trust Game (TG), an interpersonal economic exchange. We found that neurologically normal adults reciprocate trust in kind, i.e., they increase trust in response to increases from their partners, and decrease trust in response to decreases. In contrast, patients with damage to the insula displayed abnormal expressions of trust, both by behaving benevolently (expressing misplaced trust) and malevolently (violating trust). These findings suggest that the insula is necessary for expressing normal interpersonal trust.