Relative speed of true vs false responding

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The true/false reaction time task presented one word on each screen and required participants to respond with True (right response key) if it was a synonym for true, or False (left response key) if it was a synonym for false. The true words were: right, valid, accurate, definite, confirm, sure, yes, correct, and true. The false words were: incorrect, invalid, deny, untrue, no, wrong, inexact, and inaccurate.

Participants completed 3 blocks of 80 trials each.

Descriptive statistics

n	mean_age	sd_age	mean_rt	sd_rt	mean_accuracy	sd_accuracy
51	34.14	11.77	670.5	Inf	0.94	0.05

Analysis

Analyses examined whether participants were faster to categorise synonyms for true vs synonyms for false in order to assess for a general affirmation reaction time bias.

Two strategies were used. In both cases, reaction times > 10000 ms were trimmed as outliers (for parity with D scoring). First, reaction times were compared between the true versus false trials using an independant t test, t(12126.4) = 5.78, p = <.001, Mrt difference = 34.18, 95% CI [22.58, 45.77], Cohen's d = 0.1, 95% CI [0.07, 0.14].

Second, for the sake of familiarity and to aid comparisons with analyses of IRAP data, reaction times on the true/false task were confered to D scores. These compared the relative speed of responding on True trials relative to False trials, with positive scores indicating faster responding for True. A one sample t test then these D scores against the zero point, t(50) = 5.14, p = <.001, mean D score = 0.12, 95% CI [0.07, 0.17].

Results therefore support a bias towards affirmative (true) responding relative to rejection (false) responding.