a reinforcement learning approach to social contagion

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integration

Baumeister & Leary, 1995; Cacioppo et al., 2002; Durkheim, 1897; Lazarus, 1984; Uchino et al., 1996
reinforcement learning

reward prediction

adaptation

Schultz et al., 1997; 2002, O’Doherty et al., 2003

Gluck et al., 2002; Poldrack et al., 1999
Baumeister & Leary, 1995; Cacioppo et al., 2002; Durkheim, 1897; Lazarus, 1984; Uchino et al., 1996

integration: "tuning" opinions and behaviors

reinforcement learning

adaptation

reward prediction

consensus

social integration
Learning via consensus

$N = 14$

Zaki, Schirmer, & Mitchell (2011), *Psych Science*
learning via consensus

reward prediction

Klucharev et al., (2010), Neuron
learning via consensus

adaptation

1 2 3 4 5 6 7
unattractive no change attractive
learning via consensus

adaptation

rating change

* $t(13) = 2.25$, $p < .05$

- peers higher
- peers lower
- peers agree
- no information

Zaki, Schirmer, & Mitchell (2011), *Psych Science*
learning via consensus

adaptation

Zaki, Schirmer, & Mitchell (2011), *Psych Science*
not necessarily bad news

$r = -0.45$

$p < 0.05$
thanks!