**Positive Interdependence Attenuates the Empathy-Altruism Relationship**

It pays-off to help others to receive help at later times of need\(^1\). Empathy motivates altruism: more likely to be deployed when target is kin\(^2\), close\(^3\), reciprocating\(^4\), or a risk-pooling partner\(^5\). Kinship, closeness, reciprocity and risk-pooling are sources of perceived fitness interdependence\(^6\). Interdependence should correlate with empathy, but due to costs of deployment, people will rely on cues of interdependence rather than empathy to decide who and how much to help.

### Study 1: Mturkers within-subjects (57% male, M\(_{age}\) = 33.69, SD\(_{age}\) = 9.77)

Study 2 (replication): 192 Undergrads (53% female, M\(_{age}\) = 20.27, SD\(_{age}\) = 1.59).

### Study 3: 325 undergrads (53% male, M\(_{age}\) = 19.02, SD\(_{age}\) = 1.27)

Design: 2(Target: sibling/acquaintance) x2(Need: everyday activity vs. difficult situation) between conditions + imagine other perspective taking instructions. Participants self-reported their willingness to help a sibling or an acquaintance at different times of need after rating their felt empathic concern.

### Study 4: 429 undergrads (56.8% female, M\(_{age}\) = 19.13, SD\(_{age}\) = 1.41)

Design: 2(interdependence vs. independence) x2(need vs. no need) between subjects + imagine other perspective taking instructions. Participants self-reported their willingness after rating their felt empathetic concern in an independent or interdependent situation.

**Does perceived outcome interdependence (i.e., shared fate) attenuate the effect of an empathic concern manipulation on willingness to help a sibling or an acquaintance in times of need?**

- Among undergrads, perceived interdependence attenuated the effect of affective empathy on willingness to help when measuring across all relationship targets.
- Also among undergrads, perceived interdependence attenuated the effect of affective empathy on willingness to help in the absence of interdependence. Participants were also quicker to decide how much food to give in an outcome interdependence task.

**Does perceived interdependence attenuate the effect of empathy on willingness to help a wide variety of relationship targets in times of need?**

- Undergrads and Mturkers reported higher affective empathy for friends and siblings, but across targets, interdependence (β = .46\(^{**}\)) was a stronger predictor than closeness (β = .13\(^{**}\)) or relatedness (β = -.05\(^{**}\)).
- Among Mturkers, perceived interdependence attenuated the effect of affective empathy on willingness to help when measuring across all relationship targets.

### Conditions: Please think of a difficult [everyday] situation [activity] of your sibling [acquaintance]. What did he/she go through?

**Perceived outcome interdependence, but not the emotional engagement component of perceived interdependence, attenuated the effect of an empathic concern manipulation on willingness to help a sibling or an acquaintance during times of need.**

**Does an outcome interdependence manipulation attenuate the effect of empathic concern on willingness to help an acquaintance?**

- In an outcome interdependence manipulation, empathic concern only predicted help in the absence of interdependence. Participants were also quicker to decide how much food to give in the interdependent than the independent condition M\(_{diff}\) = 2.89, t(429) = 2.19*.

Thus, we find evidence to support the claims that a) affective empathy is modulated by perceived interdependence, b) outcome interdependence attenuates the effects of empathic concern on help, and c) people are quicker to help when outcomes are interdependent, suggesting people rely on cues of interdependence rather than empathy when making helping decisions.

For more information please contact me at dguevar3@asu.edu