



Effects of Empathy and Relationship Type on Altruistic Behavior



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INTRODUCTION

Research Question:

How does state-empathy predict altruistic behavior, specifically willingness to help, and situational interdependence? How does relationship type moderate this effect?

Prior Literature:

- Kin Selection Theory- altruistic behavior is a function of genetic relatedness (Hamilton, 1964)
- Social Exchange Theory- altruism is reciprocal and based on a cost-benefit analysis (Trivers, 1971)
- Empathy-Altruism Hypothesis- altruism and cooperation can also result from feelings of empathic concern (Toi & Batson, 1982) (Batson & Ahmad, 2001)
- Niche Limitation Models of Friendship- friends foster mutual altruism regardless of reciprocity (Tooby & Cosmides, 1996)
- Communal and Exchange Relationships- differ in the amount of reciprocity expected for altruism (Clark, 1984)
- Situational Interdependence- dependence on others as determined by context is associated with prosocial behavior (Columbus et. al, 2020)

Rationale:

- Altruism is determined by reciprocity except in close relationships and when one feels empathetic
- Since people already behave altruistically towards their friends, inducing empathy should have a greater impact on altruism towards strangers
- Situational interdependence is an indirect measure of cooperation

HYPOTHESES

Main Effect 1: Those participants who are induced with empathy will be more willing to help the person in the story and score higher on the situational interdependence scale than those not induced with empathy.

Main Effect 2: Participants will be more willing to help and have higher situational interdependence with their friend than a stranger.

Interaction: Those participants who are induced with empathy will be more willing to help the person in the story and score higher on the situational interdependence scale than those not induced with empathy, and this effect will be more pronounced when the story is about a stranger than a friend.

METHODS & MATERIALS

Design

2 x 2 Between-subjects design

Independent Variable

Empathy: induced vs. control

Moderator

Relationship Type: Friend vs. stranger

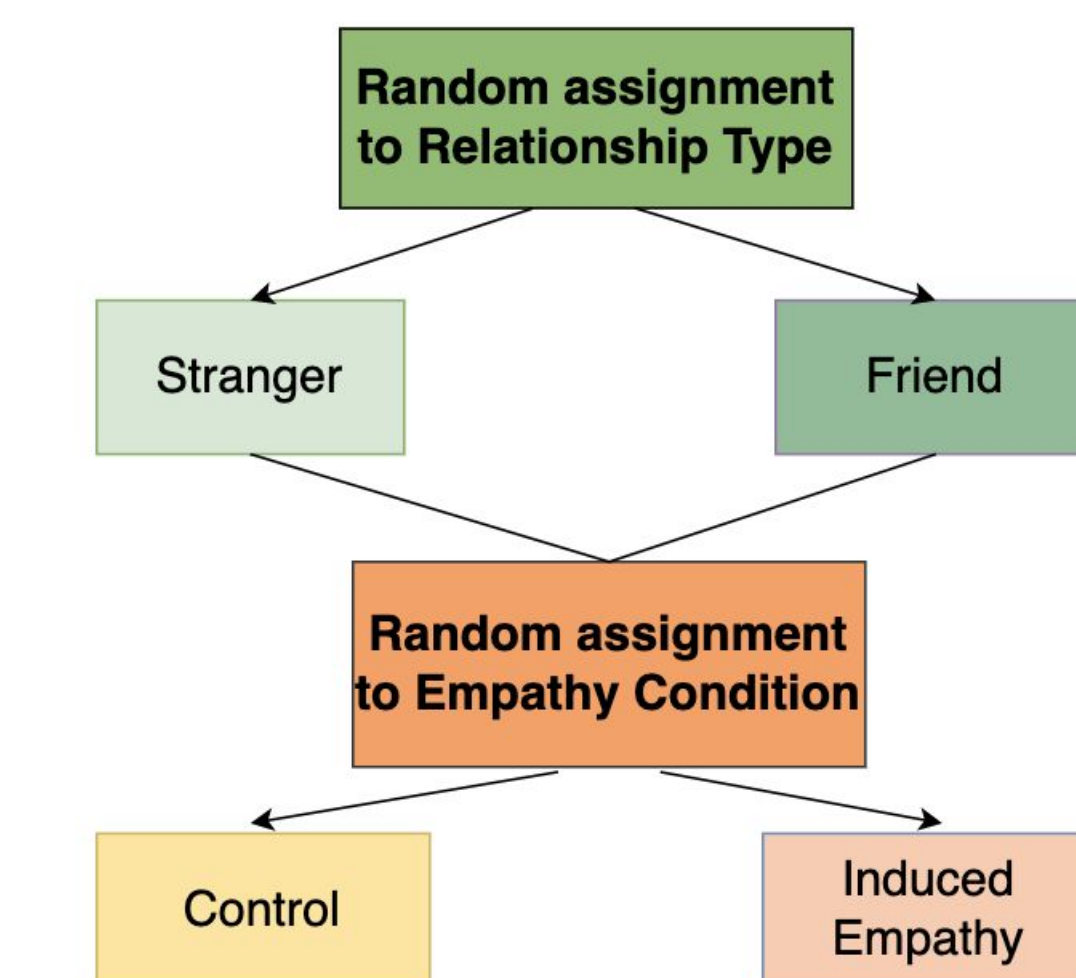
Dependent Variables

1. Willingness to help others
2. Situational Interdependence

Sample Population

105 participants (73 Female, 30 Male, 2 other) recruited via PSY 120L and social media

Procedure & Materials



Vignette:
A fellow classmate, either your close friend or Carol, has been involved in a serious car accident and has sustained many injuries. While in recovery, she needs help catching up with class notes, for she is at risk of failing PSY 10A.

Willingness to Help:
Participants were asked the following:
1. How willing are you to help this individual by helping them find someone to get notes from for PSY 10A?
2. If you are willing to help, how would you?

Manipulation Check:
Participants were asked how much empathy, on a scale from 1 to 4, they felt for the person in the vignette

Situational Interdependence Scale:
A 30 item questionnaire using a 5-point Likert scale to determine how people evaluate their relationship with the character in the vignette.

EXPERIMENTAL RESULTS

Empathy x Relationship Type on Situational Interdependence (2 x 2 ANOVA)

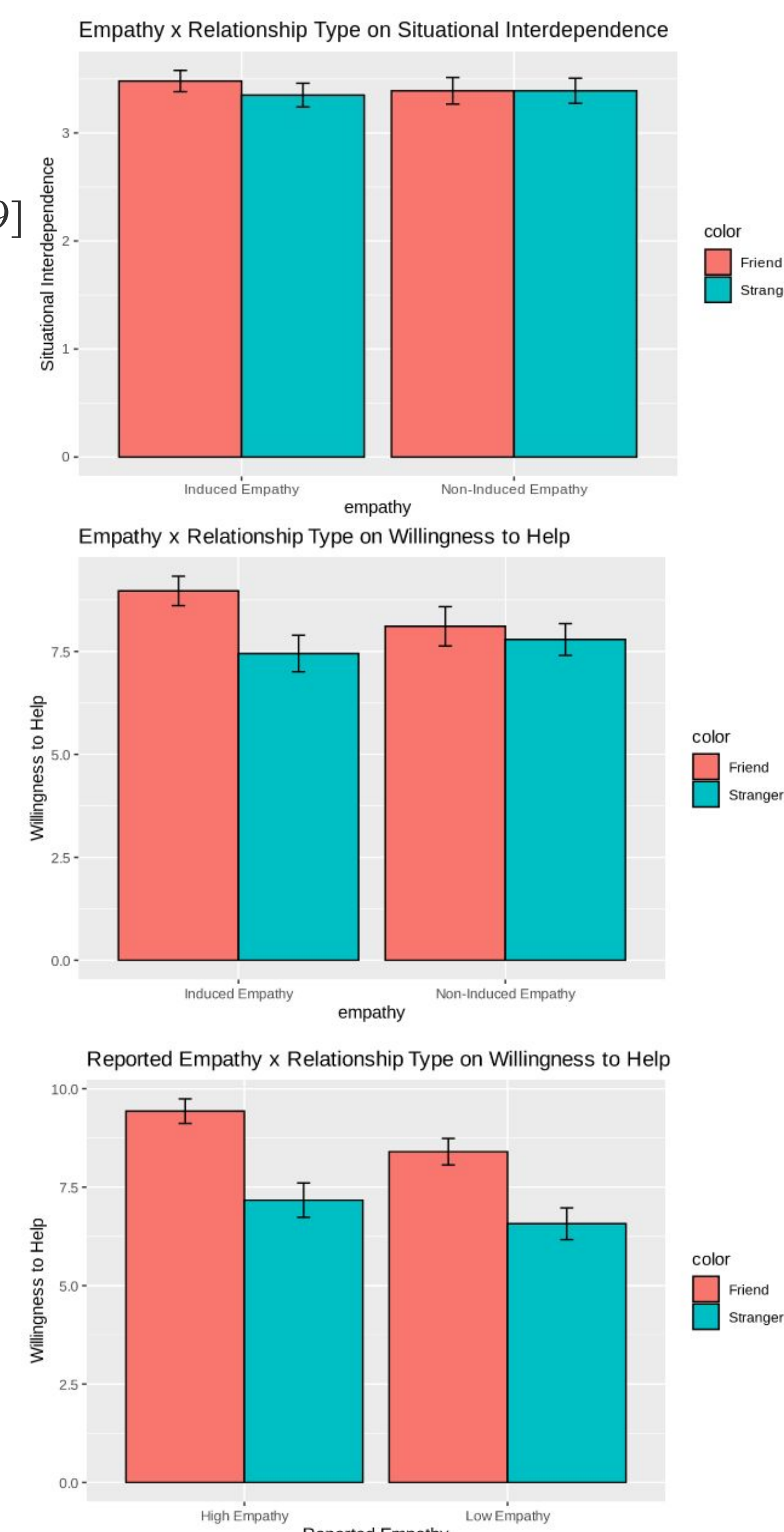
- No main effect of Empathy on SIS
 - $F(1,74) = .188, p = .666, \eta^2 = 0.0049, Ms = 3.415$ vs. 3.39]
- No main effect of Relationship Type on SIS
 - $F(1,74) = .262, p = .61, \eta^2 = 0.013, Ms = 3.435$ vs. 3.37]
- No interaction
 - $F(1,74) = .241, p = .625]$

Empathy Manipulation x Relationship Type on Willingness to Help (2 x 2 ANOVA)

- No main effect of Empathy on WTH
 - $F(1,99) = 1.254, p = .2655, \eta^2 = 0.00343, Ms = 8.21$ vs. 7.95]
- Main effect of Relationship Type on WTH (Friend > Stranger)
 - $F(1, 99) = 5.282, p = 0.0236, \eta^2 = 0.0486, Ms = 8.97$ vs. 8.11]
- No interaction
 - $F(1,99) = 2.067, p = .1537]$

*Reported Empathy on Willingness to Help

- Empathy manipulation showed to be ineffective, but greater reported empathy was correlated with more willingness to help ($r(102) = 0.49446, p < .0001$).
- Reported empathy was split into high (4) and low (1,2,3)
- Significant difference of high versus low empathy on willingness to help
 - $t(70.30) = 5.3051, p < .01]$



DISCUSSION

Main Findings

- We found a main effect of relationship type on willingness to help in which participants were more willing to help a friend than a stranger
- When we used reported empathy rather than manipulated empathy, we found a significant difference in willingness to help and situational interdependence

Limitations

- Empathy manipulation didn't work
 - Ceiling effect of empathy (median = 4, 66/105 scored 4)
 - Similarity of character in vignette to sample caused higher base empathy
- Couldn't measure cooperation directly through qualtrics

FUTURE WORK

- Replicate this experiment using a stronger manipulation of empathy such as presenting the vignette in an audio format as done in the original study
- Rather than using Situational Interdependence as a dependent variable, the prisoner's dilemma could be used to directly measure cooperative behaviors

CONCLUSION

- Participants were more willing to help their friends rather than strangers.
- Self-reported empathy predicts both willingness to help and situational interdependence, which supports the Empathy-Altruism Hypothesis.
- There was no reported interaction between empathy and relationship type on altruism.

ACKNOWLEDGMENTS

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