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# Different Mechanisms Underlie the Identified Victim Effect, Proportion Dominance Effect and In-group Effect in Helping Situations

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## Abstract

This study systematically investigated if different helping effects are mediated by different psychological mechanisms. The results suggest that:

- ❖ The identifiable victim effect is best mediated by sympathy
- ❖ The proportion dominance effect is best mediated by perceived utility
- ❖ The in-group effect is best mediated by perceived responsibility.

## Psychological Mechanisms Underlying Helping

According to Weber's theory of decision modes (1998; Ames, Flynn & Weber, 2004), decisions are primarily affect-based, calculation-based or recognition-based. In the current studies, these decision modes are operationalized as three psychological mechanisms that each can increase helping motivation.

### Emotional Reactions

Sympathy (directed outwards) or Distress (directed inwards) elicited by the emergency situation can increase helping motivation (Batson, 2011; Kogut & Ritov 2005a, 2005b).

### Perceived Utility

The more valuable people believe that their contribution can be, the more likely they are to help (Duncan, 2004).

### Perceived Responsibility

Believing that one has an obligation or duty to help will increase helping motivation (Cryder & Loewenstein, 2012).

## Helping Effects

Situational differences that influence helping motivation.

### The Identifiable Victim Effect

The tendency to be more motivated to help when one can save a determined and identified victim than when one can save an undetermined and statistical victim (Small & Loewenstein, 2003; Kogut & Ritov, 2005a).

### The Proportion Dominance Effect

The tendency to be more motivated to help when one can save a large proportion of the victims (e.g., 20 out of 24) than when one can save a small proportion of the victims (e.g., 20 out of 400; Baron, 1997; Bartels, 2006).

### The In-group Effect

The tendency to be more motivated to help when one can save in-group victims than when one can save out-group victims (Burnstein, Crandall & Kitayama, 1994; Levine et al., 2002).

## Hypotheses

- Emotional reactions will increase the steepest when victim-identifiability increase, and emotional reaction will mediate the identified victim effect.
- Perceived utility will increase the steepest when the size of the reference group decrease, and perceived utility will mediate the proportion dominance effect.
- Perceived responsibility will increase the steepest when the victims become more part of one's in-group, and perceived responsibility will mediate the in-group effect.

## Method

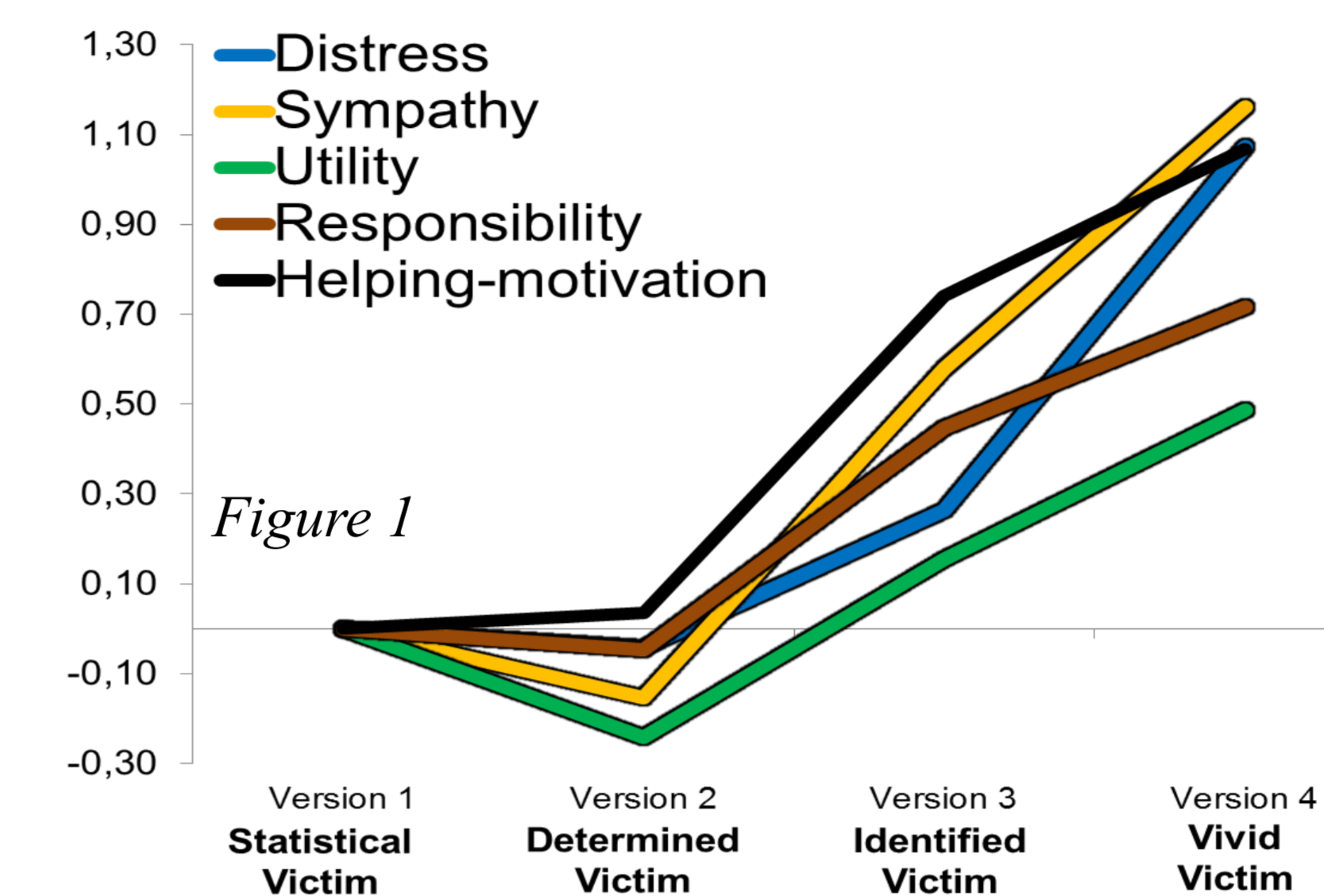
Three separate studies were conducted using a within-subject design where participants read four different versions of a helping situation and rated their reactions (distress, sympathy, perceived utility of helping, perceived responsibility to help) and subsequently their helping motivation to each version.

- In Study 1, participants read that they could sponsor a Children's Village in Africa. Identifiability of one child in the village increased gradually.
- In Study 2, participants read that they could sponsor a vaccine that could cure 275 children with meningitis. The size of the reference-group decreased gradually thereby increasing rescue proportion.
- In Study 3, participants read that they could donate one of their kidneys to a girl. The relation one had to the girl's father gradually became closer to one's in-group.

The analyses were done in three steps.

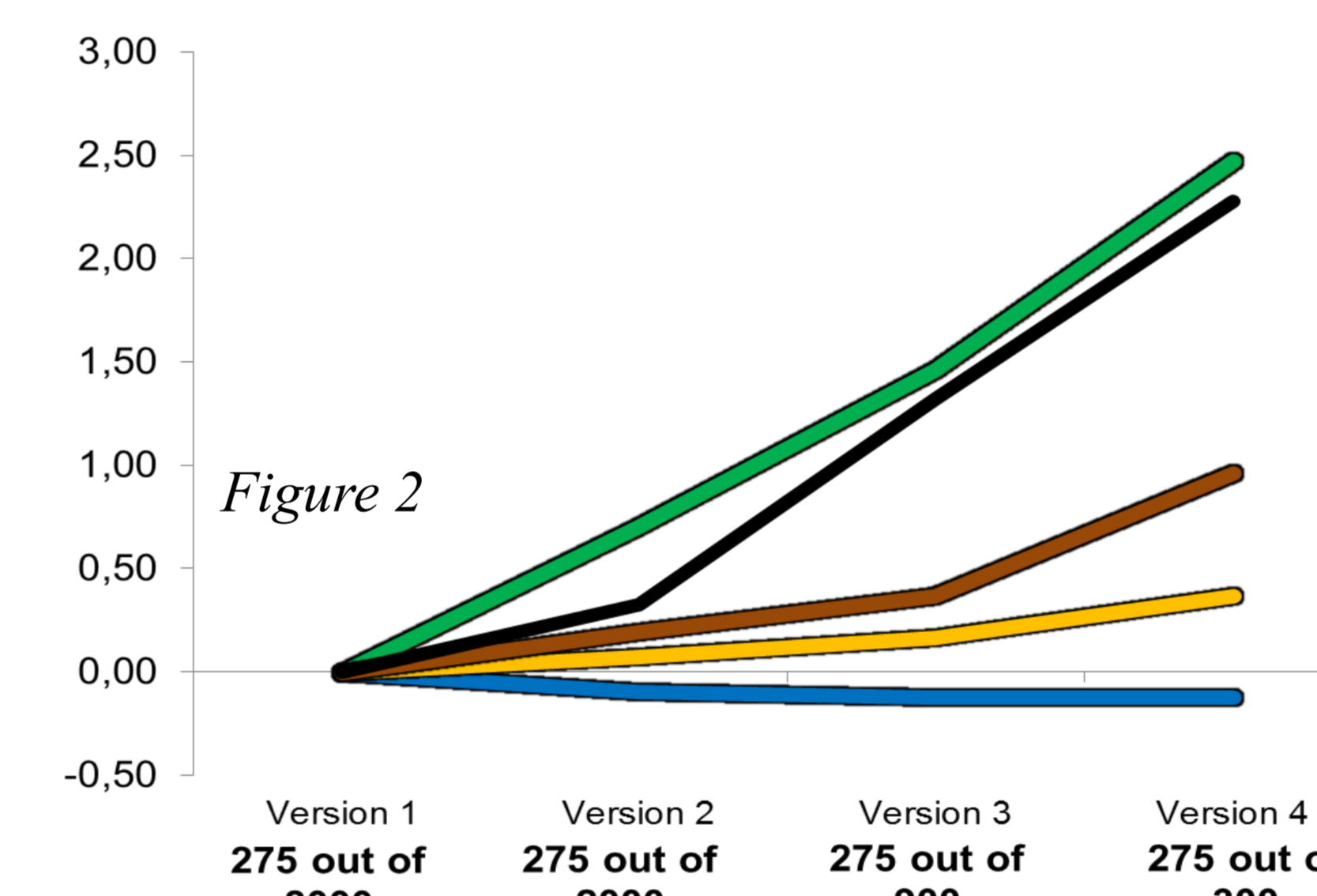
- 1) Confirming the main effect on helping motivation.
- 2) Comparing the slopes of the different psychological reactions using a polynomial contrast (linear version  $\times$  mechanism type) and then simple contrasts.
- 3) Testing if any of the four psychological mechanisms mediate the helping effect using the method suggested by Judd, Kenny and McClelland (2001).

## Results



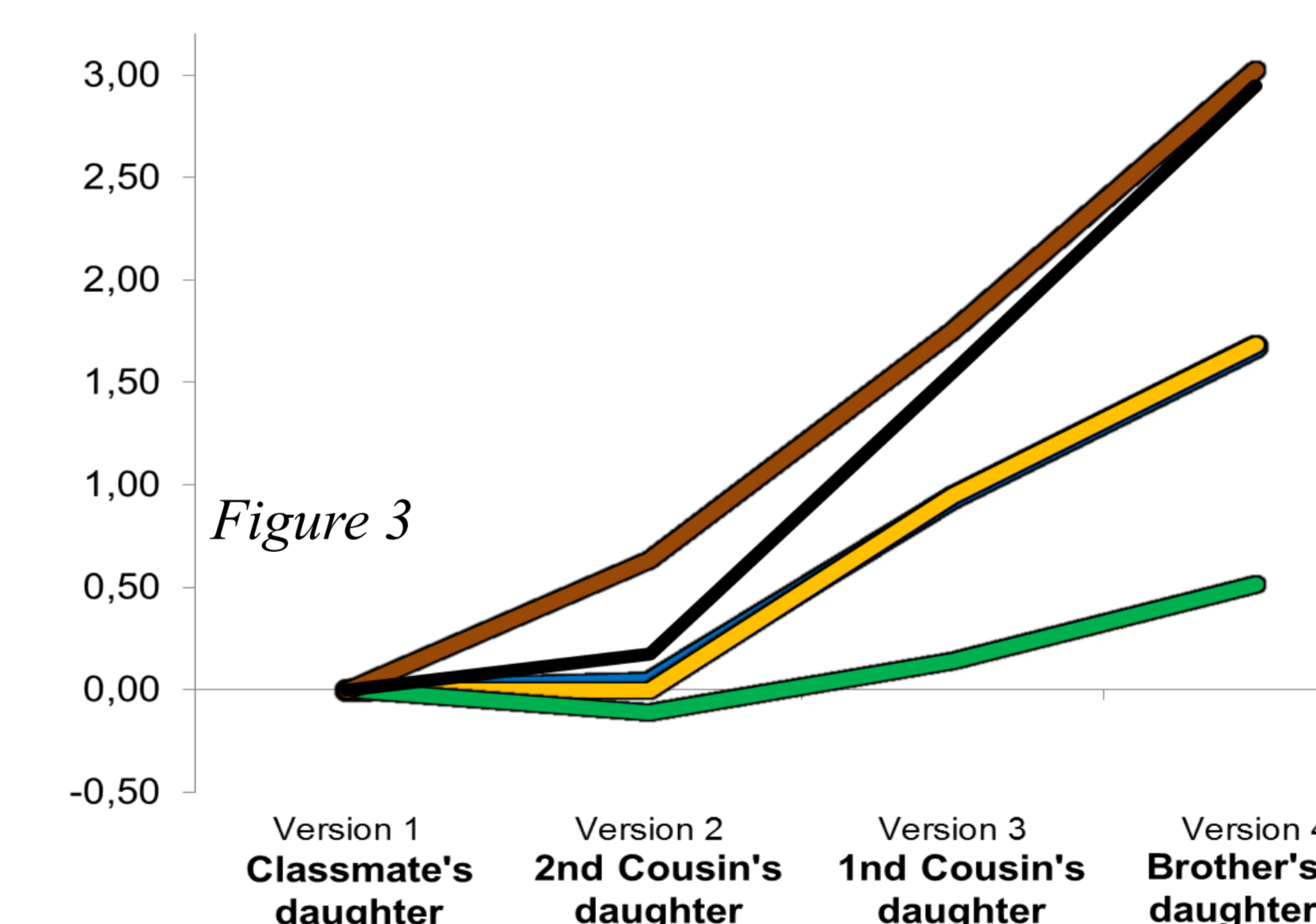
**Study 1: Identifiable Victim Effect**  
 $N = 58$ ,  $M_{age} = 21.90$  ( $SD = 2.06$ )

- 1) Main effect on helping motivation.  $F(3,55) = 9.41$ ,  $p < .001$ ,  $\eta^2 = .34$
- 2) Sympathy and distress increased the steepest when identifiability of a victim increased (Figure 1).
- 3) Only condition differences in sympathy completely mediated condition differences in helping motivation.



**Study 2: Proportion Dom. Effect**  
 $N = 40$ ,  $M_{age} = 21.80$  ( $SD = 2.17$ )

- 1) Main effect on helping motivation.  $F(3,37) = 14.44$ ,  $p < .001$ ,  $\eta^2 = .54$
- 2) Perceived utility increased the steepest when the rescue proportion increased (Figure 2).
- 3) Only condition differences in perceived utility completely mediated condition differences in helping motivation



**Study 3: In-group Effect**  
 $N = 40$ ,  $M_{age} = 23.48$  ( $SD = 2.83$ )

- 1) Main effect on helping motivation.  $F(3,37) = 41.43$ ,  $p < .001$ ,  $\eta^2 = .77$
- 2) Perceived responsibility increased the steepest when victim in-groupness increased. (Figure 3).
- 3) Only condition differences in perceived responsibility completely mediated condition differences in helping motivation

## Conclusion

This study systematically tested multiple mediators on multiple helping effects. The results suggest that different helping effects are best mediated by different psychological mechanisms. The identifiable victim effect is primarily mediated by sympathy toward the victims, the proportion dominance effect by perceived utility and the in-group effect by perceived responsibility. This illustrates an interaction between the "when" (i.e. helping effects) and "why" (i.e., psychological mechanisms) in helping.

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