

# EFFECT OF ELEVATION ON ALTRUISTIC BEHAVIOUR



Project Repository

**Team Psychothoughts**

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# MOTIVATION

Feelings of elevation, elicited by witnessing another person perform a good deed, have been hypothesized to motivate a desire to help others. However, despite growing interest in the determinants of prosocial behavior, there is only limited evidence that elevation leads to increases in altruistic behavior.

There have been very few studies that actually study this phenomenon, which makes this hypothesis even more enticing as it is a fairly novel concept.

# NOVELTY

- The original paper we referred to used only female participants in their study due to the nature of their experiment. However, we conducting our study on a male-majority population.
- The original paper does not test participants' altruistic nature after watching a sad/non-altruistic video. However, we are presenting such a video as well. The sad video has given us a greater insight into this phenomenon, as will be discussed later.
- We are also calculating a larger number of correlations between more variables.

# OUR HYPOTHESIS

- We expect there to be a marked change in the participants' altruism levels depending on the video that they have been shown.
- We believe that witnessing a virtuous/prosocial act leads individuals to be more likely to perform the prosocial act themselves.
- A positive correlation is to be expected between the altruism levels shown by the participants (based on our custom scenario-based questionnaire) and the video they have been shown.

# ETHICS AND PROTOCOLS

- The situations we present to the participants will be crafted to be unbiased.
- The participants' answers and personal information will remain strictly confidential.
- The participants retain the right to withdraw at any point in the study.
- Participant sampling/data interpretation will be done in an unbiased manner, ensuring the experimenters' opinions do not sway the results.
- To ensure that we do not have repeated participants, participants' email ID will be used.
- Appropriate instructions and suggestions were clearly provided in our survey form.
- The survey was strictly confidential. No personal information except age and gender was taken.
- Single blind setup was ensured, where the participant did not know about the purpose of the survey before, but was provided the option to get to know more about it post.

# PROCEDURE

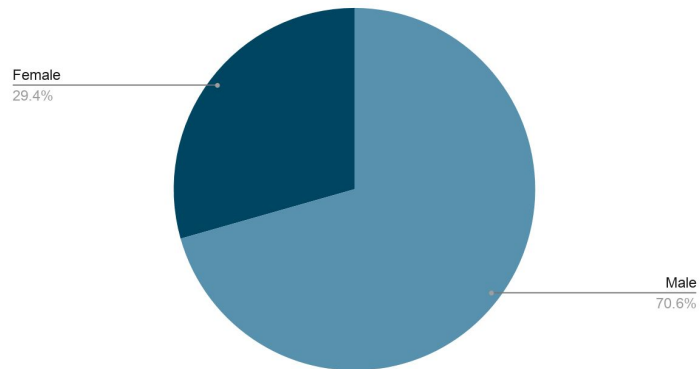
- The participants were first shown a single video (uplifting/control/sad)
- Then, they were asked to rate themselves on a scale of 1-9 on 9 measures of self-rating
- They had to fill out a short summary of the video to ensure that they had watched it all the way through. This was also used to by us to determine the responses to discard.
- They were then presented with a set of 15 questions based around altruism where their personal interests were at stake.
- Next, they were presented with a set of 16 questions based around altruism where their personal interests were not at stake.
- Last, they were presented with a general health questionnaire.
- **The videos were selected based on an earlier survey and are divided into Uplifting, Control, and Sad which were randomly allocated.**

# EXPERIMENT

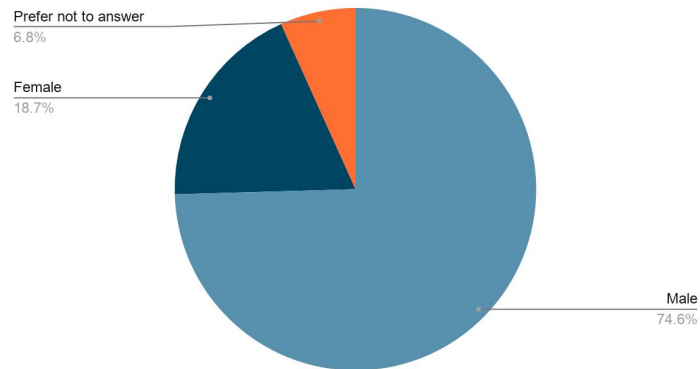
- We are doing a survey based experiment.
- It was conducted with the help of Google Forms, after providing the appropriate information and taking their consent, the participant is redirected to watch a short video, following which they are asked to provide a summary about the video and answer a few questions about how they felt after watching it.
- The videos shown here are of three types:
  - Elevating (<https://youtu.be/BwqSraJpqfs>)
  - Neutral (<https://youtu.be/DepFQpJ5KqU>)
  - Demotivating (<https://youtu.be/2aD6VpfUIHE>)
- The choice of which type of video to show is random.
- The form then proceeds to ask scenario-based altruism questions, and then the General Health Questionnaire.

# DEMOGRAPHICS: GENDER

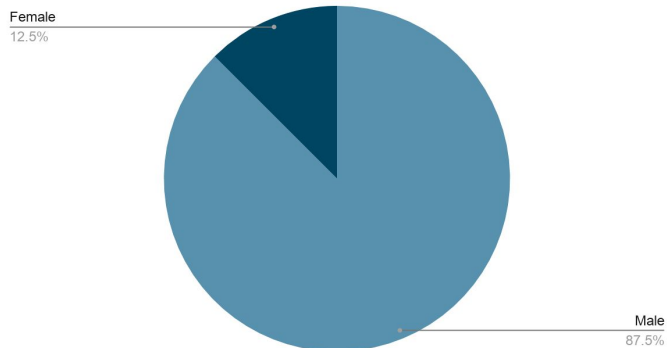
Gender division: Uplifting



Gender division: sad



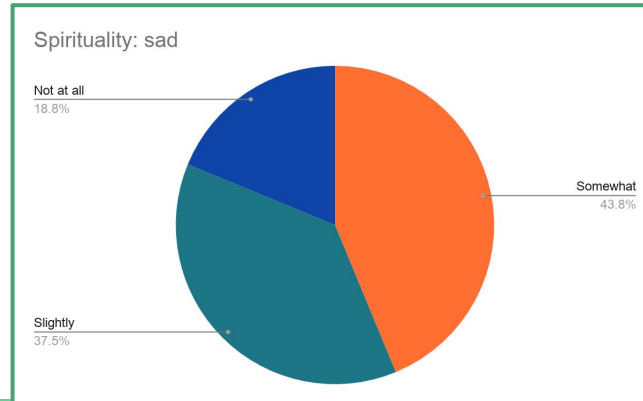
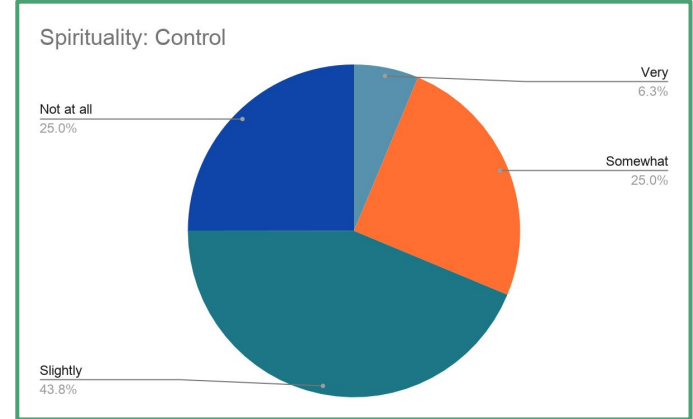
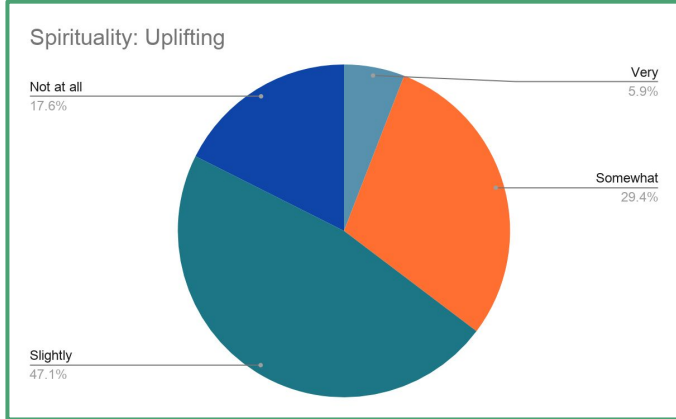
Gender: Control





# DEMOGRAPHICS: SPIRITUALITY

“How spiritual do you consider yourself to be?”



# DEMOGRAPHICS: AGE AND GENERAL MENTAL HEALTH

**Average age:**

**Overall:** 19.6

**Happy:** 19.7

**Control:** 19.5

**Sad:** 19.4

**General Mental Health “Score”**

(normalized to  $[0,1]$ )

**Happy:** 0.431

**Control:** 0.573

**Sad:** 0.483

# Method used to score the Linkert Scale

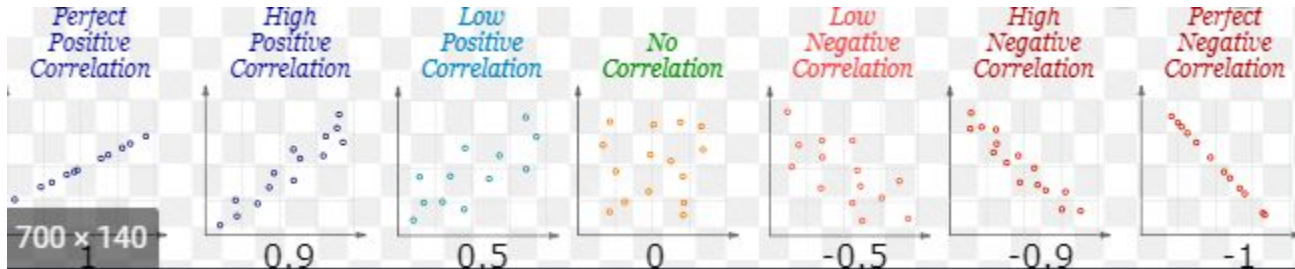
- Definitely - +4
- Probably - +2
- Possibly - 0
- Probably Not - (-2)
- Definitely Not - (-4)

(Carifio, J et al. 2007)

# CORRELATION

We have used the pearson correlation coefficient:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$



# RESULTS AND INFERENCES

# MEANS OF SELF RATING (1-9)

Condition	Moved	Uplifted	Optimistic about humanity	Warm feeling in chest	Wanting to help others	Wanting to become a better person	Happy	Arousal	Pleasantness
Elevation	6.17	6.35	5.94	6.17	6.05	6.29	6.82	5.82	8.17
Control	2.68	3.37	4.06	3.5	5.43	4.06	4.25	3.5	5.8125
Sad	6.31	4.81	2.75	4.25	6.43	6.37	2.25	6.75	3.5

# OBSERVATIONS AND EXPLANATION

- We can see that **moved**, **optimistic about humanity**, **happy**, **arousal** and **pleasantness** exhibit means in a decreasing order when going from elevation, neutral and sad videos.
- However, we can see that the means **wanting to help others** and **wanting to become a better** person are highest in the sad video which is not in accordance with our hypothesis.

## Possible Reasons

- Through analysis, we found that the general health of participants who watched the sad video were significantly higher than the others which could lead to inherent altruism. (Refer to the start of the slides)
- Moreover, people who watch sad videos are found to have increased feelings of social bonding, which can be a major cause of our skewed results. (Dunbar, R.,2020)

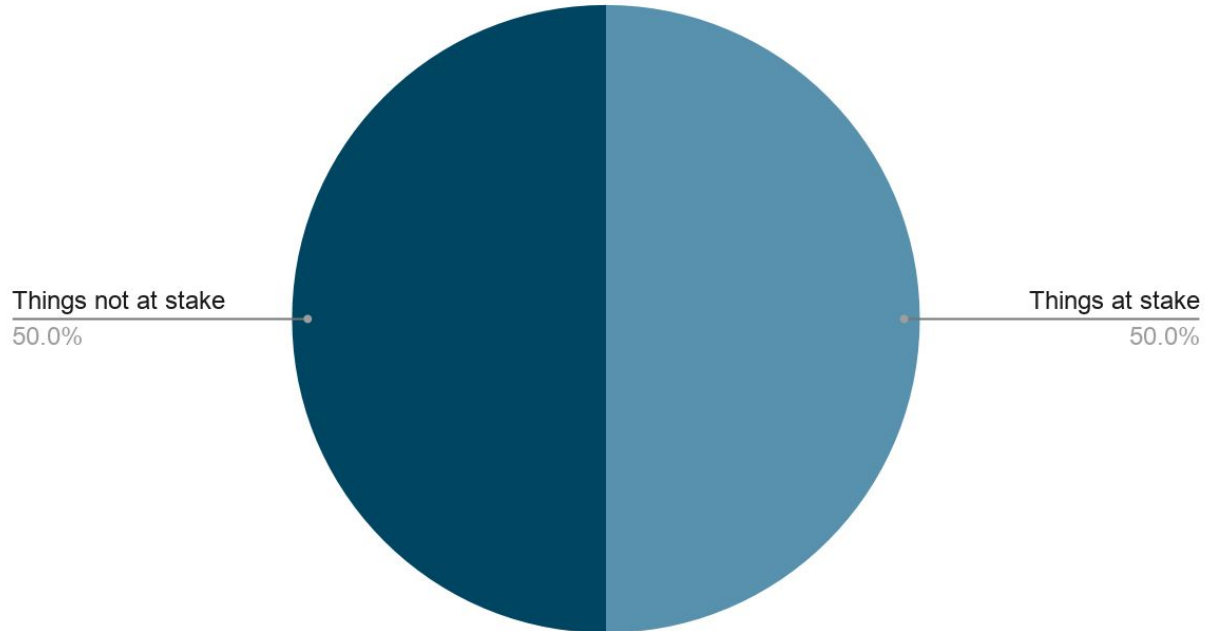
# **DIVISION BASED ON WHAT'S AT STAKE**

Questions were divided on whether the participants' personal interests were at stake



# DIVISION OF QUESTIONS

Division of Questions



# THINGS AT STAKE VS MOSR

	Personal things at stake	Personal things <b>not</b> at stake
Arousal	<b>0</b>	<b>0.19</b>
Pleasantness	<b>0</b>	<b>0.09</b>
Moved	<b>0.03</b>	<b>0.25</b>
Uplifted	<b>-0.04</b>	<b>0.12</b>
Optimistic about humanity	<b>0</b>	<b>0.14</b>
Warm feeling in the chest	<b>0.15</b>	<b>0.26</b>
Wanting to help others	<b>0.19</b>	<b>0.52</b>
Want to become a better person	<b>0.06</b>	<b>0.44</b>
Happy	<b>-0.1</b>	<b>0.06</b>

# OBSERVATIONS AND EXPLANATIONS

- We can observe that there is a high correlation for **seven** measures of self-rating when personal interests are **not** at stake.
- However, only **two** measures of self-rating have a high correlation when personal interests are at stake.

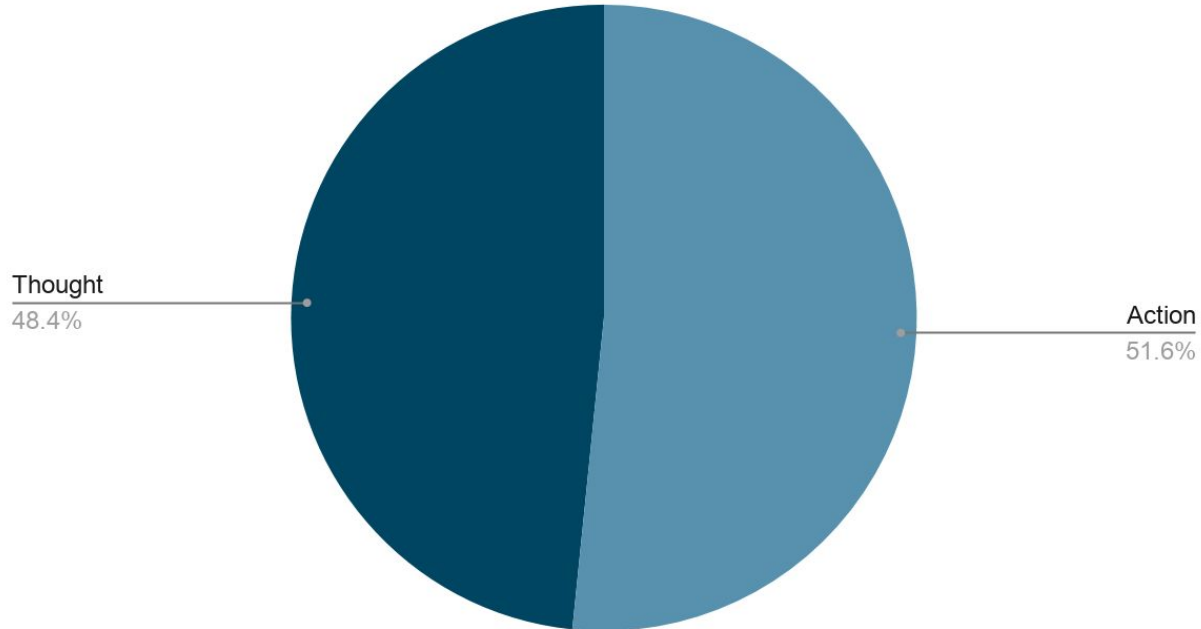
## Possible Reason

- People are more likely to be altruistic when they don't have something personal on the line, i.e, only when they are sure their personal interests are taken care of, they begin helping others.

**DIVISION BASED  
ON THOUGHTS  
AND ACTION**

# DIVISION OF QUESTIONS

Division of Questions



# CORRELATIONS

	Action	Thought
Arousal	-0.04	0.21
Pleasantness	0.01	0.03
Moved	-0.02	0.25
Uplifted	0.16	0.22
Optimistic about humanity	0.02	0.04
Warm feeling in the chest	0.10	0.32
Wanting to help others	0.25	0.47
Want to become a better person	0.07	0.33
Happy	-0.13	-0.08

# OBSERVATIONS AND EXPLANATION

- We can observe that there is a high correlation for **six** measures of self-rating when in **thought** based questions.
- However, only **three** measures of self-rating have a high correlation in the **action** based questions.

## Possible Reason

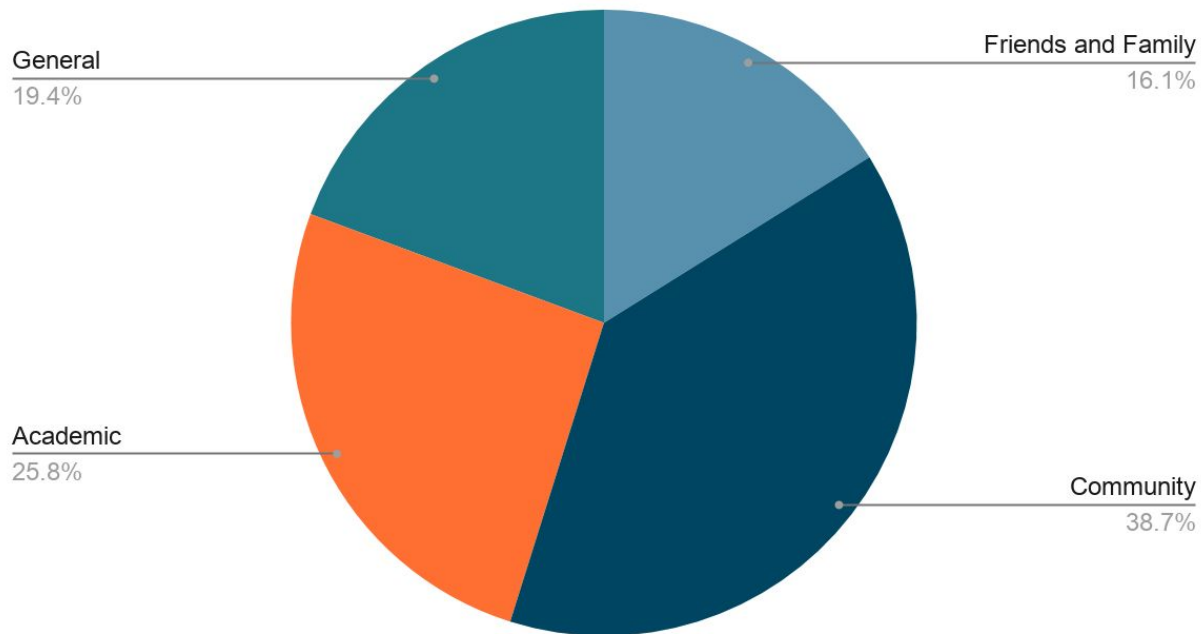
- People are more likely to be altruistic when they don't actually have to act on the altruistic thought. Having to take action makes people less altruistic.

# **DIVISION BASED ON SITUATION**



# DIVISION OF QUESTIONS

Division of Questions



CORRELATIONS

	Friends and Family	Community	Academic	General
Arousal	0.01	0.01	-0.02	0.21
Pleasantness	0	0.09	0	0.04
Moved	0.13	0.08	0	0.1
Uplifted	0.1	0.04	-0.07	0
Optimistic about humanity	0	0.08	-0.01	0.03
Warm feeling in the chest	0.15	0.22	0.023	0.18
Wanting to help others	0.31	0.44	0.11	0.20
Want to become a better person	0.18	0.24	0.03	0.23
Happy	-0.04	0	-0.18	-0.12

# OBSERVATIONS AND EXPLANATION

- As we can see, the correlation values for 'Wanting to help others' and 'Wanting to become a better person' match exactly with our expectations
- We notice that the Pleasantness of the video and the amount of Arousal the video creates in the participant makes no difference to the altruism of a person.

# MISCELLANEOUS CORRELATIONS

# ALTRUISM CATEGORY VS GHQ

	Personal things at stake	Personal things not at stake	FnF	Community	Academic	General	thought	action
Mental Health	<b>0.36</b>	<b>0.05</b>	<b>0.31</b>	<b>0.2</b>	<b>0.14</b>	<b>0.12</b>	<b>0.18</b>	<b>0.26</b>

- We can observe the General Health of a person has high correlation with overall altruism of the person.
- This shows that a person is likely to be more altruistic when their general health is good and vice versa. Keep in mind positive correlation goes both ways.

# ALTRUISM CATEGORY VS SPIRITUALITY

	Personal things at stake	Personal things not at stake	FnF	Community	Academic	General	thought	action
Spirituality	0.13	0.46	0.21	0.42	0	0.23	0.33	0.16

- We can observe the General Health of a person has high correlation with all categories of the person.
- This shows that a person is likely to be more altruistic if they are more spiritual and vice versa.

# MOSR VS GHQ

	MOSR	Arousal	Pleasantness	Moved	Uplifted	Optimistic about humanity	Warm feeling in chest	Wanting to help others	Wanting to become a better person	Happy
GHQ	0.23	0.02	0.19	0.24	0.29	0.20	0.05	0.01	0.17	0.24

- We can observe that there is a high correlation for **seven** measures of self-rating with the over health derived from the GHQ.
- This shows that a person is likely to rate themselves to be higher when their general health is good as opposed to when it is bad.

# LIMITATIONS

- Due to the constraint of having an online survey, ensuring the conditions and mindset the survey was given under was not possible and only conditions could be recommended.
- A survey does not capture the actual and effective altruistic tendencies of people. They may tend to be more altruistic on the survey than in real life.
- Due to the long survey, it will be tough to ensure sincerity in filling the survey which may lead to errors.
- The study used a 7 minute video and under well supervised conditions, but we were limited to smaller videos to ensure the total survey's time requirement was met.
- Due to the pandemic, people may be more altruistic than before (DW ,2020).



# LIMITATIONS

- We had to ensure the survey was short and not tedious to increase the number of samples, as no form of payment or incentive was given considering we wanted to keep the sampling random and confidential. This meant having lesser questions and lesser types of questions.
- We were also unable to establish baseline altruism. Altruism is an intricate thing, people may not show the same altruism behavior depending on people and types of incidents.
- Moreover, different people view friendships and academics differently. So, the survey answers can be swayed heavily by people's mindset regarding social and academic values.

# FUTURE WORK

- Conducting a survey flow where the participant is asked altruism questions before and after the video to better understand the impact of their video as people may or may not already have altruistic tendencies.
- Increase the variety and number of questions, trying to capture more scenarios and with more confident scores.
- Understand the effect of sad or demotivating videos on altruistic behavior and try to understand if there may be a loop here; if an altruistic person has more tendencies to have negative emotions, and a person undergoing or influenced to negative circumstances tend to have increased altruism tendencies.

# REFERENCES

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*Study Finds Signs of Altruism in People's COVID-19 Worries, Putting Concerns about Others First*. Newswise.com. (2020). Retrieved 26 November 2020, from <https://www.newswise.com/coronavirus/study-finds-signs-of-altruism-in-people-s-covid-19-worries-putting-concerns-about-others-first>.

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<https://doi.org/10.3844/jssp.2007.106.116>

**THANK YOU!**