

## Proposal EASP grant: attitude networks of the novel coronavirus

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This research consortium combines relevant theoretical and methodological insight into the social psychological antecedents of (health) behaviour with specific knowledge from the National Institute for Public Health and the Environment, which is the main informant of governmental policy regarding the COVID-19 pandemic. As such, results from the current research are uniquely positioned to influence policy making.

### Research question, background and methods

#### Research question

The current study aims to gain insight into socio-psychological factors that influence protective behaviours in the corona pandemic. The main question is: What is the relationship between perceptions of the corona pandemic and the degree to which people display the recommended protective behaviours?

This main question will be answered through three research questions:

1. What is the impact of the attitude elements on the perception of the corona pandemic?
2. Which attitude elements are most important in predicting the perception of the corona pandemic?
3. What is the relationship between attitudes towards of the corona pandemic and other relevant sociopsychological factors as identified in the literature (i.e. problem perception, risk perception, feelings, trust (in authorities and health care professionals), personal traits such as humanitarianism, fear of negative evaluation and need for chaos, and the perceived control (i.e. self-efficacy, response efficacy, responsibilities and social norm))?

#### Background

We use a formalised network approach, the Causal Attitude Network (CAN) approach (Dalege et al., 2016), in order to gain a deeper understanding of the relationships between beliefs and attitudes. Dalege et al. (2016, p. 3) state: *'This model conceptualizes attitudes as networks that consist of evaluative reactions and interactions between these reactions. Relevant reactions include beliefs, feelings, and behaviors toward an attitude object. Interactions between these reactions arise through direct causal influences (e.g., the belief that snakes are dangerous causes fear of snakes) and mechanisms that support evaluative consistency between related contents of evaluative reactions (e.g., people tend to align their belief that snakes are useful with their belief that snakes help maintain ecological balance).'*

The results provide input for different strategies to influence the degree to which people display the recommended protective behaviours (Dalege, Borsboom, van Harreveld, & van der Maas, 2019), which contributes to controlling the corona pandemic. Dalege, Borsboom, van Harreveld, and van

der Maas (2017) underline the relevance of the network approach since it provides insight into decision-making and which attitudes to target with persuasion attempts. Recent research into bio based plastics (Zwicker et al., 2020 - published after minor corrections) shows that insight into the structure of attitudes, derived via the network approach, can be applied to identify barriers to target with interventions.

#### Method

We will conduct a survey via Prolific with a representative sample (age, gender and ethnicity) with 500 participants from the United Kingdom.

The CAN approach enables us to answer the first two research questions. To answer the third research question, we study the relationship between attitudes and other relevant socio-psychological factors that are important in pandemics. This will help us to gain a broader view of how these factors interact with attitudes and each other. These other relevant socio-psychological factors are problem perception, risk perception, feelings, trust (in government and health care professionals), personal traits such as humanitarianism, fear of negative evaluation and need for chaos, and the perceived control (i.e. self-efficacy, response efficacy, responsibilities and social norm).

Given the exploratory nature of this study, we expect the constructs to be related, but we do not hypothesise a direction of these relationships.

#### References

- Dalege, J., Borsboom, D., van Harreveld, F., van den Berg, H., Conner, M., & van der Maas, H. L. J. (2016). Toward a formalized account of attitudes: The Causal Attitude Network (CAN) model. *Psychological Review*, *123*(1), 2–22. doi:<https://doi.org/10.1037/a0039802>
- Dalege, J., Borsboom, D., van Harreveld, F., & van der Maas, H. L. (2019). A Network Perspective on Attitude Strength: Testing the Connectivity Hypothesis. *Social Psychological and Personality Science*, *10*(6), 746-756.
- Dalege, J., Borsboom, D., van Harreveld, F., & van der Maas, H. L. J. (2017). Network Analysis on Attitudes: A Brief Tutorial. *Social Psychological and Personality Science*, *8*(5), 528-537. doi:10.1177/1948550617709827
- Zwicker, M. et al. (2020 - published after minor corrections). CAN and biobased plastics - specific title unknown. *Journal of Environmental Psychology*.

#### Dissemination strategy

The results will be published in an open access paper, preferably in the journal *Social Psychological and Personality Science* (SPSS). SPSS announced to expedite processing of manuscript submissions related to the coronavirus (Covid-19).

Furthermore, we will make an accessible product to disseminate our results that are important for communication strategies (e.g. factsheet, short article). We will distribute this product to different health care agencies, such as WHO, CDC and ECDC, and other authorities in the United Kingdom.

Also, after conducting a similar study with a Dutch panel (different budget), we want to compare the results and attitude networks, which will also result in a paper.

## Finances

Costs	Euro	Additional information
Participant remuneration	5.1.2b	625 GBP (reduced fee due to awarded waived commission and representative sample fees for COVID-19 research)
Open access paper (APC)		The standard article processing charge (APC) for SAGE Choice is 5.1.2b
Accessible product to disseminate results to health care agencies		Design, input communication expert - costs have yet to be specified
Total		
Conversion risk		USD and GBP to EUR
<b>Grand total</b>		

## Time frame

ID	Task Name	Duration	Timeline											
			apr 2020			mei 2020			jun 2020			jul 2020		
1	Design survey	2w	[Task 1: Design survey - spans early April to early May]											
2	Publish survey and collect data	2w	[Task 2: Publish survey and collect data - spans mid-May to mid-June]											
3	Analyse data	4w	[Task 3: Analyse data - spans late May to late August]											
4	Write paper	8w	[Task 4: Write paper - spans late June to late August]											
5	Accessible product	4w	[Task 5: Accessible product - spans late July to late August]											
6	Revision paper	2w	[Task 6: Revision paper - spans early August to mid-August]											