

Is Magic disgusting? Evaluation of efficacy of magical practices.

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Introduction

This research project is related to magical practices and judgements of their efficacy. The magical practices of interest are those used to harm someone. Psychologists Paul Rozin and Carol Nemeroff demonstrated that magical beliefs/practices are based on the idea of contamination. As defined by psychologists and biologists, contamination involves transmission of a contaminated substance from a source (a person or an object), that is also "a vehicle" of this substance, to a recipient (another person or object). In some cases, contamination includes a medium that transfers a contaminated substance from the source to the recipient. This substance (essence) then becomes part of the recipient's body (Rozin, Nemeroff 1990)

Contamination activates strong emotions of disgust and fear; any contact with contaminated things, however minor, is repulsive (Bloom, 2004). According to evolutionary psychologists, these emotions are an outcome of an evolutionary pressure that might keep humans from contact with toxic substances and objects that might cause disease. Although what is disgusting is partially influenced by culture, a widespread feature is that those substances that spontaneously trigger disgust are objects likely to contain infectious agents, including dead bodies, rotting foods, and bodily fluids such as feces, phlegm, vomit, blood, and semen, as it motivates proximal avoidance of such things (Tybur, Lieberman, Griskevicius 2009).

Research question:

What is the role (if any) of disgusting items (that trigger emotions such as disgust and fear) in magical practices?

Hypotheses:

H: Magical practices that include disgusting items will be perceived as more effective than those without it.

H1: Magical practices based on contact will be more effective than those based on imitation

H2: The most effective magical practices will be those in which a disgusting item is ingested.

H3: Among the magical practices, those with personal (disgusting) items (blood, hair, saliva etc.) will be perceived as the most effective.

H0: Disgusting items mentioned in described magical practices do not influence judgements of efficacy of those practices.

Material:

- a within subject, repeated measures factorial design
- 16 short vignettes per group (2 groups) describing supposed magical belief from around the world
- each story described a magical action a person might perform with an item and s/he believed in outcome of this action
- disgust was the main variable: each vignette had two variants – with a disgusting or a non disgusting item used
- each participant received only one of the 2 variants
- every participant had 8 vignettes with a disgusting item and 8 with a nondisgusting item

Each vignette introduces a hypothetical problem and then a possible magical practice is described that has been used to solve the problem.

Stories vary according to key components (**independent variables**) based on the hypotheses: the presence of a disgusting item or non-disgusting item, contact or imitative magic, personal/or non-personal disgusting item, per oral/ non oral contact. The main dependent variable is **the efficacy evaluation**.

e.g.

Ritual direct/ non-disgusting / effect good / non-personal

Some people have a belief that a marriage will last long, be successful and with many children, if a bride and a groom, on their wedding day, put three drops of milk of a fat, well fed and fertile cow into their wine, stir it for three times and drink.

Procedure:

- vignettes were written in English and translated into Czech
- participants were asked to fill questionnaire online via Survey monkey website
- they were asked to read each story and label how effective they find a described magical practice on a Likert scale from 0 (strongly agree) to 4 (strongly disagree)
- words „magical, magical practices, disgust“ were not mentioned in the instructions
- vignettes were randomly presented one after another, participants could choose only one answer and were asked not to change their first answer

Sample:

- data of 159 participants were used : 52 man and 107 women,
- 24,5 % (the highest mean) were born in 1993



Discussion:

In this study we tried to measure efficacy of magical practices if different factors were involved. Although, study did not show significant results for the most of hypotheses, it showed some interesting results that can be elaborated and studied further.

Contrary to expectations, disgust did not play a role in the evaluation of efficacy, not even in the case of personal disgusting items – blood, saliva, hair i.e. substances very often mentioned in various ethnographic studies- This is also in contrast with Rozin's and Nemeroff's results. Why is it like that? One possible answer is that when we are speaking about supernatural influence and magical practices, there definitely are some intuitive assumptions. However, idea of the direct influence – direct contamination can be in some sense „too intuitive“. Rozin, Nemeroff and M showed lower results for positive manifestations of contagion in similarity. Here we could see, that good effect vignettes were in general evaluated as more effective than bad effect vignettes. It could be that when directly confronted with a threat, people will show higher response to the disgusting stimuli (as in R&N study) than if they evaluated fictional story from different cultural context.

It could be a case that although emotion of disgust was induced it was too strong and participants were influenced by it but in an opposite direction – that it triggered negative feelings which could further influenced their judgments.

Results:

H1:

A paired – sample t-test showed no significant difference in evaluation of disgusting vs. non – disgusting stories: Average non-disgust stories (M = 2,66, SD = 0,73), Average disgust stories (M = 2,61 (2,609), SD = 0,78 (0,776). Mean difference (M = - 0,53, SD = 0,51, SE = 0,42, t (148) = -1,285, p = 0,201

H2:

a repeated measures factorial ANOVA with disgust and direct contact as the independent variables was conducted. The analyses showed no significant interaction between Disgustingness/Direction: $F(1, 148) = 1,393, p = ,239$. Magical practices which involved disgusting item and direct contact were not perceived as the most effective. AverageDGDir (M = 2,46; SD = 0,85), AverageDGInDir (M = 2,76; SD = 0,85), AverageNonDGDir (M = 2,56; SD = 0,79), AverageNonDGInDir (Mean = 2,77; SD = 0,81), but there was a significant main effect for Direction: $F(1, 148) = 37,56, p < ,001$. However, this effect was in the opposite direction as predicted by hypothesis 2: participants' perceived indirect magic as more effective than direct magic. Results suggest that participants found practices with indirect contact as more effective. Moreover, the presence of disgusting items did not influence this effect at all.

H3 and H4:

Conducted two by two repeated measures ANOVA (Disgust/ NonDG x Personal/NonPersonal) showed not significant interaction between Disgust/Personalisation : $F(1, 148) = 0,000, p = 1,000$.

However, there was significant main effect of personalised items : $F(1,148) = 33,17, p = ,00$.

In general, participants found Personal items used in magical practices important – means for both disgusting and nondisgusting personal items used in vignettes were higher than DG/ non DG Non personal items. Personality was somehow influencing judgments of efficacy. H3 was at least partially supported.

Results:

- A repeated measures ANOVA with disgust and type of magic only found a main effect of magic type, with ritual magic vignettes evaluated as more effective than similarity magic. There was significant main effect for the type of magic $F(1,148) = 4,36, p = ,00$, with mean of AverageNonDGRit highest (M = 2,47, SD = 0,87). $F(1,148) = 0,34, p = ,73$
- There was significant main effect of good/ bad effect: $F(1, 148) = 11,21, p = 0,001$. There was not specified hypothesis in this case. In general results indicate that Good effect vignettes were evaluated as more effective and that when disgust item was used for the good purpose, these cases were evaluated as the most effective (but if this interact with Direction, AverageNonDGInDirPers had the highest mean)