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Reputation management may explain the apparent contagiousness of immorality

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Abstract

Findings showing reluctance to contact morally disgusting objects such as Nazi clothing have been interpreted as showing that immorality is perceived as physically contaminating. However, reputational concerns could underlie the apparent contagiousness of immorality. In hypothetical and behavioral studies participants preferred a Nazi armband under rather than over their clothing, despite requiring skin contact. This preference was stronger with an audience. Participants reported little contamination concern but strong reputation concern. Third parties also judged direct contact with the armband less contaminating and immoral than display. Findings suggest that apparent moral contagion effects may be explained by self-presentation concerns more than by contamination avoidance.

Keywords: disgust, morality, contamination, reputation, contagion

Experiments show that many participants are unwilling to contact immoral objects such as a Nazi's hat or armband (Rozin, et al., 1999), a murderer's sweater, bed, or car (Rozin, Markwith & McCauley, 1994), a disliked or evil person's jumper (Nemeroff & Rozin, 1994), money from an immoral company (Stellar & Willer, 2014), or a thief's chair (Eskine, Novreske & Richards, 2013). Such findings have been interpreted as showing that people perceive immoral objects as contagious, either via a "material essence" or a "non-material, spiritual essence" (Nemeroff & Rozin, 1994; Rozin et al., 2008). This "law of contagion" is not merely a characteristic of primitive beliefs (Frazer, 1890/1922; Tylor, 1871/1974), but a pan-cultural psychological feature operating in "a salient and frequent way in the thinking of educated, Western adults" (Nemeroff & Rozin, 2000, p 6).

Although this behavior looks like the avoidance of physical contaminants (hence "apparent contagiousness") it might be motivated by the desire to avoid visibly associating with immorality, especially in front of an audience. Indeed, many studies were in front of an experimenter (e.g., Rozin & Nemeroff, 1986; Eskine et al., 2013), or a video camera (Rozin et al., 1999).

People adjust their behavior when they perceive reputational consequences, by, for example, being more cooperative or moralistic in the presence of observers (Filiz-Ozbay & Ozbay, 2014; Haley & Fessler, 2005; Kurzban, DeScioli & O'Brien, 2007). Reputation can be damaged by the company one keeps (Goffman, 1963). Observers judge people who associate with stigmatized individuals (Neuberg, Smith, Hoffman, & Russell, 1994), even if their relationship is only incidental (Pryor, Reeder & Monroe, 2012). People might also feel threatened by visibly associating with immoral objects, such as a Nazi armband. Touching or wearing these objects could lead to inferences of immorality by association, so apparent contagion avoidance might primarily be

motivated by self-presentation concerns. An experimental design that dissociated contagion from display concerns by forcing a choice between the two could clarify which is the more important motive. We devised such a paradigm by giving participants a choice between contact with a Nazi armband and display of the armband. Following Rozin and colleagues (1999) we used a Nazi armband because in Western populations Nazis are reliably immoral (Rozin et al., 2008), without association to plausible biological contaminants.

Study 1

Method

Participants.

Amazon MTurk was used to recruit 102 (55 male) participants from the United States ($M_{\text{age}} = 36.78$, $SD_{\text{age}} = 11.08$). In all experiments, sample size was determined before data collection (see Supplemental Materials for details), and we report all measures, manipulations and exclusions.

Materials and procedure.

Participants imagined coming to a psychology lab for a study on historical clothing and being asked to wear a Nazi armband. They could put it on top of their t-shirt sleeve, or directly onto their arm underneath their t-shirt sleeve. Participants reported binary and scaled preferences, and rated influences on their decision on 7-point scales. For contagion concerns, which, according to Rozin and colleagues, can be via material or spiritual essence: “I did not want to get contaminated by touching it” and “The evil essence of the arm band could have passed into me” ($r = .75$). For reputation concerns: “I would not want to seem like I support Nazis” and “I would not

want to seem like I approve of what the Nazis did” ($r = .90$). Convention and positive appeal might influence choice, so they rated “This is the way armbands are supposed to be worn” and “I wanted to see how it felt to be like a Nazi”. As a manipulation check of stimulus immorality, they rated “How immoral are the Nazis?” and “How morally bad is the person who originally wore the arm band?” ($r = .30$).

Results

Two participants were excluded because they responded below the scale midpoint on Nazi immorality. The mean immorality rating for the remaining participants was 5.39 ($SD = 0.76$), close to the scale maximum of six.

Decision. More participants (61) chose to wear the armband underneath their t-shirt sleeve, against their skin, than on top (39), $\chi^2(1, N = 100) = 4.42, p = .036$, Cohen’s $w = .21$. The scaled preference was also for underneath the t-shirt sleeve ($M = 3.70, SD = 2.47$) rather than on top ($M = 2.37, SD = 2.44$), $t(99) = 2.78, p = .006, d = 0.12$.

Reasons. ANOVA revealed a significant interaction between choice and reason, $F(3, 241.38) = 26.49, p < .001, \eta_p^2 = .22$. For participants who wore the armband under, reputation was more important ($M = 5.23, SD = 1.40$) than contagion ($M = 1.07, SD = 1.79$), convention ($M = 1.13, SD = 1.63$), or positive appeal ($M = 0.32, SD = 1.06$), all $p < .001$. For participants who chose to wear the armband over the t-shirt, reputation ($M = 3.51, SD = 2.30$) and convention ($M = 3.46, SD = 2.25$) were similarly important, $p = .91$, and, critically, contagion ($M = 1.08, SD = 1.60$) was less important than convention or reputation, $p < .001$ and of similar importance to positive appeal ($M = 1.15, SD = 1.80$), $p < .81$.

Discussion

Participants had a clear preference for wearing the Nazi armband so that it was not visible, even though that brought it into direct contact with their skin, suggesting that participants were more strongly motivated by reputational concerns than by contamination concerns. Self-reported reasons also suggested that contamination had little influence.

Study 2

Study 2 sought to replicate findings in the lab using a real immoral object. Participants wore a sleeveless shirt and a jacket and chose to put a real Nazi armband either over the jacket or under the jacket on their skin. Reputation concerns were manipulated using randomly assigned audience and private conditions.

Method

Participants.

Ninety (15 male) students ($M_{\text{age}} = 19.61$, $SD = 3.00$) participated. They were instructed to wear a sleeveless shirt.

Materials and Procedure.

On arriving at the lab participants were shown to a private experimental cubicle containing a Nazi armband and an ostensibly historical corduroy jacket. Participants chose either to put the armband on first, (touching the skin due to their sleeveless shirt), then the jacket, or the jacket first and the armband on top. In the private condition, they then answered questions on the cubicle computer, whereas in

the audience condition, they exited the cubicle and walked through the busy lab to the experimenter's desk. The experimenter directed the participant to another cubicle for the questions. Participants rated their reasons using the same items as in Study 1. They rated the manipulation check items from Study 1 and additional items measuring disgust towards the Nazis.

Results

Four participants were excluded because they rated Nazi immorality below the scale midpoint. The mean immorality rating for the remaining participants was 5.36 ($SD = 0.73$).

Binary choice. In the private condition, participants chose to wear the armband over the jacket (30) more frequently than under (8), $\chi^2(1, n = 42) = 13.71, p < .001$, Cohen's $w = .57$, whereas participants in the audience condition chose to wear the armband under the jacket (25) about as frequently as over (18), $\chi^2(1, n = 43) = 1.13, p = .29$, Cohen's $w = .16$.

Reasons. According to ANOVA the one significant interaction was that reasons for wearing the armband over versus under their clothing differed in importance; and these choice-reason correspondences were similar in public and private conditions. Mean ratings (Figure 4) are therefore collapsed across private and audience conditions. Paired t-tests (Bonferroni corrected p value = .00625) comparing reasons within choice showed that for participants who chose over the jacket, contagion was less important than convention, $t(50) = 5.28, p < .001$, or reputation, $t(50) = 6.30, p < .001$, and of similar importance to appeal, $t(50) = 1.00, p = .51$. For participants who chose underneath the jacket, reputation was rated more important than contagion, $t(33) = 11.86, p < .001$, appeal, $t(33) = 10.72, p < .001$, or convention,

$t(33) = 9.10, p < .001$. Again, contagion was reported of similar importance to appeal,

$t(33) = 0.99, p = .33$.

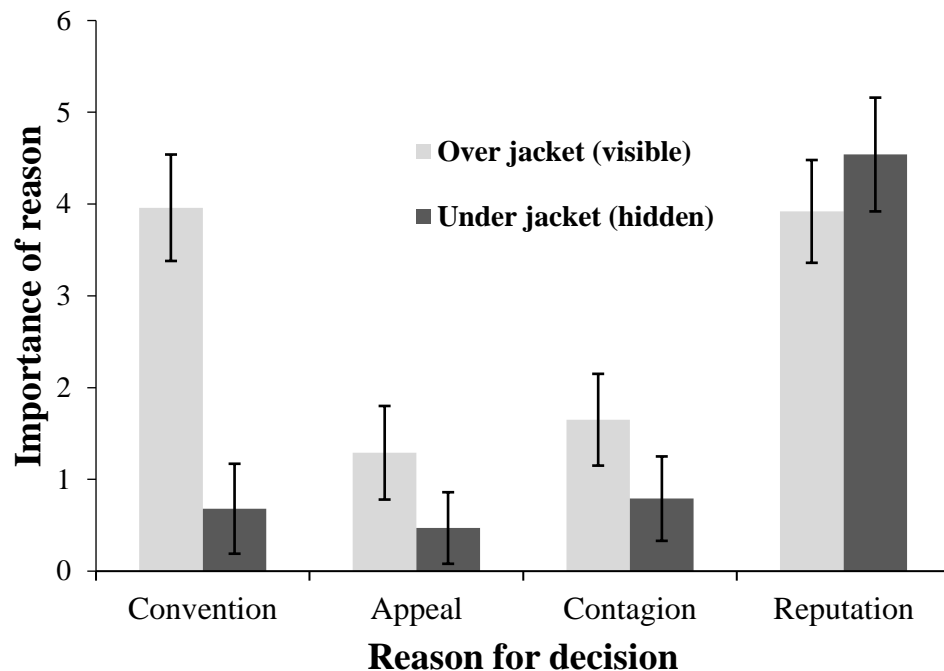


Figure 4. Reasons given by participants for their choices in Study 2, collapsed across private and audience conditions. Error bars represent 95% confidence intervals.

Discussion

More participants chose to hide the armband underneath the jacket in the audience condition than in the private condition, confirming the importance of self-presentation concerns. Even in the public condition a substantial minority (42%) of participants chose to wear the armband over the jacket. In an earlier lab experiment (Rozin et al., 1999), a similar proportion willingly wore a Nazi armband on display (44%). In that experiment, the 56% of participants who were unwilling to wear the armband were interpreted as avoiding contagion; but in this experiment a similar proportion chose to put the armband directly against their skin, suggesting that it was

display, not contagion, that they sought to avoid. Moreover, in both conditions participants reported little concern about contagion. Instead, participants reported that reputation concern was most important if they chose to hide the armband, and following convention was important to the decision to wear it visibly.

Study 3

Method

Study 3 measured third-party judgements of people who had worn the Nazi armband under versus over their clothing. If third parties judged wearing the armband directly against the skin more immoral, this might indicate that immorality is intuitively believed to transfer by contact. Judging display as more immoral would instead support the conclusions of Studies 1-2 that reputation overcomes contagion in self- as well as other-judgment. We also sought to address the possibility that, in Studies 1-2, the “conventional” reasons for wearing the armband on top were constructed post-hoc (Gutierrez & Giner-Sorolla, 2007) to more rationally justify initial contagion concerns. Third-party judges would have no self-presentation concerns when explaining the basis for the contagion motives of others.

Participants.

MTurk was used to recruit 332 (186 male) participants from the United States ($M_{\text{age}} = 36.93$, $SD_{\text{age}} = 11.41$).

Materials and procedure.

Participants were told about a target who participated in a study similar to Study 1. Between-subjects, the target was described choosing to wear the Nazi armband over his shirt sleeve, visible but not touching his skin (visible, no touch), or

under his shirt sleeve, touching his skin but not visible (hidden touch). In a third condition, the target chose to put the armband under his shirt sleeve, so that it was not visible, but not touching skin because he had a t-shirt underneath his shirt (hidden, no touch). This condition was included so that the influence of contact with an immoral object could be tested while keeping the target's decision to hide the armband constant.

Dependent measures. First, participants indicated “yes” or “no” whether the target made the more moral choice. Next, participants rated how likable, immoral, disgusting and morally contaminated the target was, how much the target had sympathy and approval for the Nazis (*Affiliation*, $r = .88$), how contaminated by the evil essence, or by a substance, from the armband (*Contagion by essence/substance*, $r = .87$) and how tainted by the armband. Items were rated on a 7-point scale. The same manipulation check questions were used as in Study 2.

Results

Five participants were excluded for failing an attention check question and seventeen based on the manipulation check. The mean immorality rating for the remaining participants was 5.52 ($SD = 0.73$).

Binary moral judgement. The target wearing the armband visibly was judged to have made the less moral choice (71 vs. 34), $\chi^2(1, n = 103) = 12.34, p < .001$, Cohen's $w = .35$, whereas the target wearing the armband hidden was judged to have made the more moral choice, whether it touched his skin (100 vs 7), $\chi^2(1, n = 107) = 79.1, p < .001$, Cohen's $w = .86$, or not (90 vs. 8), $\chi^2(1, n = 98) = 66.94, p < .001$, Cohen's $w = .83$.

Scaled judgements. A MANOVA showed an effect of Condition (visible vs. hidden touch vs. hidden no touch) on all judgements of the target. As shown in Table 1, the hidden touch and hidden no touch conditions did not significantly differ on any judgement (see Supplemental materials for exact p values and effect sizes), indicating that whether or not the target made physical contact with the immoral object made no difference to participants' perceptions. In contrast, the target who displayed the armband visibly was judged significantly more negatively on all items, including how immoral and even how contaminated.

Table 1. Participants' judgements of targets wearing the Nazi armband in three different ways, Study 3.

	Visible no touch ($n = 105$)		Hidden touch ($n = 107$)		Hidden no touch ($n = 98$)	
	M (SD)	95% Cis	M (SD)	95% CIs	M (SD)	95% Cis
Disgusting	1.76** (1.72)	[1.43,2.09]	0.41 (0.88)	[0.24,0.58]	0.51 (0.86)	[0.34,0.68]
Immoral	1.95** (1.65)	[1.63,2.27]	0.50 (0.84)	[0.33,0.66]	0.91 (1.38)	[0.63,1.18]
Morally Contaminated	1.99** (1.86)	[1.63,2.35]	0.70 (1.19)	[0.47,0.93]	0.83 (1.29)	[0.57,1.08]
Likable	2.55** (1.45)	[2.27,2.83]	4.16 (1.14)	[3.94,4.38]	4.10 (1.26)	[3.85,4.36]
Affiliation with Nazis	1.48** (1.69)	[1.15,1.81]	0.23 (0.69)	[0.10,1.10]	0.41 (0.88)	[0.24,0.59]
Contagion by essence/substance	0.91** (1.47)	[1.63,2.20]	0.27 (0.72)	[0.13,0.40]	0.42 (0.92)	[0.23,0.60]
Tainted	1.14** (1.61)	[0.83,1.45]	0.30 (0.78)	[0.15,0.45]	0.49 (1.02)	[0.29,0.69]

Note: ** indicates significantly different from the other mean ratings in the row, $p < .001$.

Discussion

Third parties judged targets who displayed the Nazi armband more immoral than those who concealed but made skin contact with it. Higher ratings of contamination and taint in the visible condition suggests that, to the (limited) extent that participants regarded the immoral stimulus as contaminating, they may have understood contamination concepts metaphorically.

General Discussion

Findings offered only limited support for the idea that immoral stimuli are perceived to be literally contagious, whether by a physical or spiritual essence (e.g., Nemeroff & Rozin, 2000). Behavior and reported motives were more consistent with a reputation management account that people are motivated to avoid immoral stimuli because they are concerned about being *seen* to associate with them. In many previous findings that have been taken to show that immoral objects are perceived as contaminating (e.g., Rozin et al., 1999), participants may have been primarily motivated by reputational concerns. Across three studies participants reported strong disgust towards Nazis, yet there was little evidence that they appraised a Nazi object as contaminating. This findings also has implications for moral disgust: it may lack the key cognitive element of contamination that others have posited (Graham et al., 2009; Horberg, et al., 2009; Rozin et al., 2008). Future research into both moral disgust and moral contagion should give more consideration to communicative and self-presentation motives (Kupfer & Giner-Sorolla, 2017; Royzman & Kurzban, 2011).

One limitation is that we used only one immoral stimulus, so we cannot be certain that findings generalize to other stimuli, or to other populations. Future

research should investigate whether reputation concerns also explain aversion to contact with other stimuli, while being careful not to conflate physical contamination with supposed moral contamination. For example, reluctance to contact a sex offender's clothing (e.g., Fedotova & Rozin, 2018) might arise because it brings to mind physical contaminants such as body products, not because participants perceive contamination by an immoral essence.

In conclusion, our findings challenge the idea that people intuitively believe that immoral stimuli are contagious, whether by a physical or spiritual essence (e.g., Nemeroff & Rozin, 2000). Behavior, reported motives, and third-party judgements were more consistent with the explanation that people are motivated to avoid immoral stimuli because they are concerned about being *seen* to associate with them, so they treat immoral objects *as if* they are contaminating. By avoiding association with immorality, apparent moral contagion behavior serves the fundamentally important social task of maintaining a good moral reputation.

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