



ELSEVIER

Contents lists available at SciVerse ScienceDirect

Cognition

journal homepage: www.elsevier.com/locate/COGNIT

Brief article

Blood is thicker: Moral spillover effects based on kinship

Eric Luis Uhlmann^{a,*}, Luke (Lei) Zhu^b, David A. Pizarro^c, Paul Bloom^d^aHEC Paris – School of Management, 1, Rue de la Libération, 78351 Jouy-en-Josas, France^bUniversity of British Columbia, Canada^cCornell University, United States^dYale University, United States

ARTICLE INFO

Article history:

Received 5 January 2012

Revised 28 April 2012

Accepted 30 April 2012

Available online xxx

Keywords:

Moral cognition

Spillover effects

Kinship

Blood ties

Psychological essentialism

ABSTRACT

Three empirical studies document the intuitive spillover of moral taint from a person who engages in immoral acts to another individual who is related by ties of blood kinship. In Study 1, participants were more likely to recommend that the biological grandchild of a wrongdoer, compared to a non-biological grandchild, help the descendants of his grandfather's victims. In Study 2, participants were more willing to hold two long-lost identical twins in custody for a crime committed by one twin than to hold two perfect look-alikes for a crime committed by one look-alike. Study 3 provides direct evidence that spillover effects based on blood kinship are manifested in an intuitive sense of moral taint.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

From 1939 to 1943 Gustav Schwarzenegger of Müritzsteg, Austria was a volunteer member of the Sturmabteilung, or SA—the Nazi storm troopers. This fact would be long forgotten if it was not that he was to be the father of global movie star and two-term Governor of California, Arnold Schwarzenegger. The younger Schwarzenegger spent much of his public life attempting to distance himself from his father's wartime ideology and acts, raising millions of dollars for Jewish causes and earning the Simon Wiesenthal Center's National Leadership Award. Regarding the elder Schwarzenegger's war record, Rabbi Marvin Hier of the Wiesenthal Center argued that "Whatever the record shows, so may it show. Should that record have any bearing on Arnold Schwarzenegger himself? In my opinion, absolutely not...he's not proud of the fact that his father was a member of the Nazi Party and that his father was a member of the SA. This is a matter of deep embarrassment, but

Arnold cannot be judged by his father" (Loof, 2003, August 29th).

The very fact that the issue arises so easily, however, suggests that there may be a general tendency for the sins of the father to spill over to judgments of the son. Such a view is made explicit in the book of Exodus, where divine justice is described as God "...visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me." (Exodus 20:5, King James Version). This view is not limited to the God of the Old Testament. History and culture provide numerous examples of individuals who were perceived as tainted by moral violations committed by their blood relatives. The Qin and later dynasties of ancient China had a policy of "nine familial executions," under which the entire extended family of traitors was put to death (Peerenboom, 1993). And in honor-based cultures such as Albania, if one's own family member is murdered, it is seen as justified to murder a member of the perpetrator's family in retribution (Mortimer & Toader, 2005, September 23).

One simple explanation for this intuition is that it is the result of a reasonable inference: blood relatives are likely to live together, form strong interpersonal bonds, and have

* Corresponding author. Tel.: +33 (0)1 39 67 97 44.

E-mail address: eric.luis.uhlmann@gmail.com (E.L. Uhlmann).

shared viewpoints. As such, morally opprobrious acts committed by a relative may actually provide valuable information about the moral status of an individual. Arnold Schwarzenegger, for example, was raised by his father, making it plausible that the elder Schwarzenegger passed along his moral values to his son. Furthermore, collective punishment and honor-based vengeance represent potent mechanisms of social control. Knowing that your whole family may be killed as punishment or retaliation serves as a powerful deterrent.

In the present studies, we explore a different, though compatible, explanation for why the taint of immoral acts can extend to family members. We suggest that even in the absence of any shared history or bonds of personal or collective loyalty, people intuitively feel that acting immorally can taint a blood relative, extending negative evaluations by dint of simply being related to moral agent despite minimal ties to the agent or his actions.

The simplest explanation for why this might occur is through brute association. For example, participants avoid individuals who have a haircut similar to a person they dislike (Lewicki, 1986). It may be that moral blame extends from the father to the son, say, simply because the two are so powerfully associated, without any implicit or explicit theory justifying the extension.

A different, yet compatible explanation is that of common-sense essentialism—the notion that physical objects and living organisms have an underlying essence that makes them what they are (Bloom, 2004, 2010; Dar-Nimrod & Heine, 2011; Hamilton, Sherman, & Rodgers, 2004; Haslam & Whelan, 2008; Plaks, Levy, Dweck, & Stroessner, 2004; Yzerbyt, Corneille, & Estrada, 2001). In the case of living organisms, that underlying essence is assumed to be passed on from parents to their children (Keil, 1989; Keller, 2005; Medin & Ortony, 1989). Although the notion that parents pass on traits to their children is, of course, correct, common-sense essentialism differs from the scientific perspective in important regards. The essentialist perspective is agnostic as to mechanism of transfer, and essentialist views can be seen in young children and members of pre-literate cultures, who have no knowledge of genetics. In addition, essentialism sometimes gives rise to the intuition that *acquired* characteristics can be transferred. For instance, 5-year-olds believe that the biological parents will pass on the language that they speak to their children, so that a child will speak the same language as his or her birth parents, not his or her adopted parents (Hirschfeld & Gelman, 1997).

If an acquired characteristic such as language is believed, at least by young children, to transfer from parent to child, this raises the possibility that people hold an intuitive belief that moral disrepute can spread between biological relatives. The taint of one person's actions (i.e., their "moral essence") should be more likely to spread from one person to another when they are already perceived to be tied by essential bonds of blood kinship. Indeed, this intuition may be powerful enough that it results in moral spillover effects even in the absence of any history of contact between the immoral agent and their genetic relative.

Although there are some people who explicitly believe responsibility for misdeeds passes through blood ties, we

doubt that this belief is openly endorsed in the educated populations that we test. By the spread of "disrepute" based on blood kinship we therefore mean not explicit moral condemnation, but rather an intuitive moral taint that is often expressed indirectly. Notably, previous research has assessed intuitive spillover effects primarily through the use of subtle and indirect measures, such as aggressive behaviour on an ostensibly unrelated task (Gaertner, Iuzzini, & O'Mara, 2008). In line with this past work, Studies 1 and 2 assessed moral taint based on biological kinship indirectly (e.g. through a willingness to impose costs on the biological kin of wrongdoers). Relevant outcome measures included judgments regarding restitution to victims (Study 1) and recommended length of detention by law enforcement (Study 2). Finally, in Study 3 we sought to provide more direct evidence that an intuitive sense of moral taint spreads along lines of blood kinship.

2. Study 1: sins of the (grand)father

Our first study provided an initial test of the hypothesis that people believe that the moral taint of the misdeeds of past generations can be transmitted through biological kinship. If so, the biological descendant of a person who exploited innocent people should be perceived as more obligated to provide restitution than a non-biological descendant.

2.1. Method

One-hundred-and-six undergraduates (51% female; $M_{\text{age}} = 20$, range = 18–30) were recruited for an anonymous survey. Participants were randomly assigned to either the *biological grandfather* or *non-biological grandfather condition*.

Participants read about Sal Hacker, who had decided to give a portion of his recent lottery winnings to charity. Sal remembered that during the Great Depression his grandfather owned a small factory that was eventually closed down for exploiting some of the poorest residents of New York. Sal's grandfather only provided jobs with extremely low wages and took little concern for the poor working conditions that had frequently led to accidents and illness. The O'Neal family, the largest group of employees, was especially exploited. The O'Neal's were threatened with termination if they did not continue working without complaint, even after two of the youngest members of the family died while working at the factory. The scenario further indicated that Sal's grandfather's fortune ran out before Sal was born, and Sal received no inheritance. In the non-biological grandfather condition, it was mentioned toward the beginning of the scenario that "Sal's grandfather is his grandmother's second husband. She divorced and remarried when Sal's father was very young."

2.1.1. Recommended restitution

In order to assess whether participants held an intuitive belief that Sal was in some way obligated to provide restitution for the actions of his grandfather, we asked participants "Should Sal contribute a portion of his winnings to help send some of the O'Neal children to college, or should

he contribute it to the International Hungry Children's Fund?" (1 = definitely the O'Neal's education, 9 = definitely the Hungry Children's Fund).

2.1.2. Demographics

In all three studies participants further reported demographic information including their age, gender, race, and political orientation. These demographic variables did not moderate the effects of the experimental manipulations in any of the present studies and are not discussed further.

2.2. Results and discussion

As expected, participants were more likely to recommend that the biological grandchild of a wrongdoer help the members of a family his grandfather victimized than to recommend that a non-biological grandchild provide the same aid. Participants were significantly more likely to judge that Sal should donate a portion of his lottery winnings to the O'Neals when Sal and his grandfather were blood relatives ($M = 4.15$, $SD = 2.52$), than when they were related by marriage ($M = 5.28$, $SD = 2.20$), $t(104) = 2.45$, $p = .02$, $d = .48$.

3. Study 2: evil twin vs. evil look-alike

Study 1 provides initial evidence that moral taint is more likely to spread between biological relatives. However, this study also possessed a significant limitation. In the non-biological condition, Sal and his grandfather were aware they were not linked by blood ties, and participants may have assumed the two had a weaker personal bond as a result. They may have inferred that the biologically-related Sal had closer ties to his grandfather than the non-biologically-related Sal, and hence felt more responsible for his actions, which in turn might motivate the belief that he has more of an obligation to repair his grandfather's wrongs. Study 2 addressed this shortcoming by using targets that had no personal relationship. We tested the hypothesis that participants would be more willing to inflict costs on the long-lost twin of a vicious murderer than on a non-relative who happened to look just like him.

3.1. Method

One-hundred-and-ninety-one adults (52% female; $M_{\text{age}} = 31$, range = 18–61) were recruited from Amazon.com's Mechanical Turk service (for reviews regarding the use of Mechanical Turk for conducting psychological research, see Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010).

Participants were told that a security camera was the only witness to the slaying of a convenience store clerk. The security camera tape showed the perpetrator entering the store holding a shotgun and demanding that the clerk give him all the money in the register. After the clerk complied, the perpetrator shot him in the head and ran out of the store, leaving the clerk to bleed to death. After an extensive investigation, no evidence was uncovered other than the surveillance tape. The scenario further indicated that

two men had been arrested, both of whom looked exactly like the robber on the tape. The two suspects did not know each other, and neither suspect had an alibi for the night in question. The two suspects were described either as "long-lost identical twins separated at birth" (*evil twin condition*) or as "look[ing] exactly alike" (*look-alike condition*).

3.1.1. Hold in custody

Participants were then asked whether both suspects should be held in custody while the police searched for more evidence, or whether they should both be set free (1 = definitely held in custody, 7 = definitely set free).

3.1.2. Additional measures

A subset of participants ($N = 96$) completed further items that served as checks on our manipulation, and to address potential confounds. As a manipulation check, participants were asked "Were the two criminal suspects in the scenario you read blood relatives?" (*yes/no*). To examine whether the twins were presumed to be more similar in appearance than the look-alikes, an item asked "To what extent do the two suspects look alike?" (1 = not much of a resemblance, 7 = very close resemblance). To address the possibility of a perceived error on the part of the police confounding the results, participants were further asked "Do you think the police made a mistake and none of the suspects is guilty?" (1 = definitely not a mistake, 7 = definitely a mistake). Finally, to assess the realism of the scenario, an item asked "How far-fetched does it seem that this sort of thing might happen?" (1 = very far-fetched, 7 = not at all far-fetched).

3.2. Results and discussion

Confirming the success of the experimental manipulation, 96% of participants saw the suspects as biologically related in the evil twin condition, compared to 8% of participants in the look-alike condition, $t(94) = 17.59$, $p < .001$, $d = 3.59$. Addressing some potential confounds, the suspects were rated as highly similar in appearance in both the evil twin and look-alike conditions ($M_s = 6.30$ and 5.88 , $SD_s = 1.16$ and 1.52), $t(94) = 1.52$, $p = .13$, $d = .31$, the police were not seen as significantly more likely to have arrested two innocent people in the evil twin than the look-alike condition ($M_s = 3.51$ and 3.96 , $SD_s = 1.65$ and 1.59), $t(94) = 1.35$, $p = .18$, $d = .28$, and the scenario was not perceived as significantly more far-fetched in one condition than the other ($M_s = 3.17$ and 3.69 , $SD_s = 2.00$ and 1.75), $t(92) = 1.33$, $p = .19$, $d = .28$.

Consistent with our primary hypothesis that sharing blood ties with a wrongdoer leads to the intuitive spread of moral disrepute, participants were more willing to hold in custody two long-lost twins for a crime committed by one twin ($M = 3.03$, $SD = 1.95$) than two look-alikes for a crime committed by one look-alike ($M = 4.21$, $SD = 1.83$), $t(187) = 4.27$, $p < .001$, $d = .63$. This effect remained statistically significant including only the 96 subjects who completed the additional measures designed to address potential confounds ($p < .05$). Study 2 thus demonstrates moral spillover based on biological kinship in the absence of any personal relationship between the targets.

4. Study 3: bad dad

A significant limitation of both Studies 1 and 2 is that neither investigation directly measured perceived moral taint, instead relying on indirect indices such as recommended restitution (Study 1) and willingness to hold the target in police custody (Study 2). In Study 3 we sought more evidence that individuals are perceived to be tainted by the misdeeds of their blood relatives by having our participants make judgments using a more direct measure of moral taint.

4.1. Method

Fifty-eight adults (63% female; $M_{age} = 32$, range = 19–63) were recruited from Amazon.com's Mechanical Turk service.

Participants read a vignette about Dennis, an adopted child who knows nothing about his lineage and therefore hires a genealogist to investigate his family tree. The genealogist discovers that Dennis is related by either blood or marriage to Bojan Haravan, a Serbian soldier who murdered Albanian civilians during the Bosnian conflict of the 1990s. In the *biological relative condition*, Dennis' biological mother was married to Bojan Haravan, who is Dennis' biological father. In the *non-biological relative condition*, Dennis' biological mother divorced his biological father and subsequently married Bojan Haravan.

4.1.1. Moral taint

Two items were used to assess an intuitive sense of moral taint: "My initial gut feeling is that Dennis is somehow tainted by the actions of Bojan Haravan" and "My intuition is that Dennis is somewhat socially stigmatized by the actions of Bojan Haravan" ($1 = \text{strongly disagree}$, $7 = \text{strongly agree}$) ($\alpha = .75$).

4.1.2. Additional measures

Further items served as manipulation checks and to address potential confounds. As a check on our manipulation, participants were asked, "Is Dennis the biological son of Bojan Haravan?" (*yes/no*) and "Are Dennis and Bojan Haravan biologically related?" ($1 = \text{not at all related}$, $7 = \text{closely related}$). To address whether a perceived error on the part of the genealogist drove the results, participants were further asked "Do you think the genealogist made a mistake?" ($1 = \text{definitely not}$, $7 = \text{definitely yes}$). Finally, to assess the realism of the scenario, an item asked "How realistic does it seem that this sort of thing might happen when someone who was adopted investigates their family tree?" ($1 = \text{very unrealistic}$, $7 = \text{very realistic}$).

4.2. Results and discussion

Confirming the success of the experimental manipulation, 100% of participants saw Dennis as Bojan Haravan's biological son in the biological relative condition, compared to only 11% of participants in the non-biological relative condition, $t(55) = 15.27$, $p < .001$, $d = 4.02$. On the continuous measure, participants likewise viewed Dennis

and Bojan Haravan as more genetically related in the biological than in the non-biological relative condition ($M_s = 6.36$ and 2.00 , $SD_s = 1.06$ and 1.51), $t(55) = 12.55$, $p < .001$, $d = 3.32$. The genealogist was seen as marginally more likely to have made an error in the non-biological compared to the biological relative condition ($M_s = 3.21$ and 2.64 , $SD_s = 1.37$ and 1.10), $t(55) = 1.71$, $p = .09$, $d = .46$, and the scenario was perceived as equally realistic in the biological and non-biological conditions ($M_s = 4.39$ and 4.03 , $SD_s = 1.93$ and 1.45), $t < 1$, $d = .21$.

Consistent with our primary hypothesis, Dennis was significantly more likely to be perceived as tainted by Bojan Haravan's misdeeds when the two men were biological relatives ($M = 3.57$, $SD = 1.33$), as opposed to related by marriage ($M = 2.69$, $SD = 1.44$), $t(56) = 2.42$, $p = .02$, $d = .64$. This effect remained significant even when controlling for the perceived likelihood of an error by the genealogist ($p < .03$), and when each of the two items from the moral taint measure were tested separately (both $p_s < .05$). In contrast to the more indirect measures utilized in Studies 1 and 2, Study 3 thus provides evidence that the spread of disrepute based on blood kinship manifests itself in an intuitive sense of moral taint that participants can directly report.

5. General discussion

Laypeople exhibit the intuition that individuals are somehow tainted by the acts of persons with whom they share blood ties—even when they share little else. In Study 1, participants were more likely to recommend that the biological grandchild of a man who harmed an innocent family provide restitution than to recommend that a non-biological grandchild do the same. In Study 2, participants were more willing to hold in custody two long-lost identical twins for a murder committed by one twin than two perfect look-alikes for a crime committed by one look-alike. In Study 3, an adopted child who discovered he was the biological descendant of a war criminal was intuitively perceived to be tainted by his ancestor's crimes. Our results suggest that the "sins of the father" practices observed in the modern and ancient worlds are not entirely due to beliefs about the social ties held between family members. Rather, they may be guided by intuitions about blood; that, much like physical and psychological features, the taint of immoral actions is something that spreads between biological relatives.

Although in these studies we demonstrated moral taint for negative acts, it remains to be investigated whether such spillover effects are unique to negative moral properties or whether they extend to positive ones as well. Do people intuitively feel, for instance, that the praiseworthy deeds of Oscar Schindler, who saved over a thousand Jews during the Holocaust, would reflect more positively on his biological children than on one of his adopted children? Do moral spillover effects diminish in accord with genetic or generational distance, such that the granddaughter of an evil person would be less tainted than a daughter? Would such taint extend to essentialized groups, such that a person born into a certain group could possibly be tainted by

crimes that the group committed in the past—but not if he were adopted into the group?

Future studies should also explore the extent to which the spread of moral taint based on blood kinship occurs spontaneously and automatically. For example, the effects we report may diminish when participants are placed in a deliberative mindset that promotes conscious control over one's judgments (Hsee & Rottenstreich, 2004). Also, learning that an individual is related by blood to an immoral person (e.g., a perpetrator of Nazi atrocities) may lead to the development of negative automatic associations with that individual that are deliberately rejected (Ranganath & Nosek, 2008). Such potential boundary conditions and empirical extensions point to exciting future directions for research on moral spillover based on kinship relationships.

References

- Bloom, P. (2004). *Descartes' baby: How the science of child development explains what makes us human*. New York: Basic.
- Bloom, P. (2010). *How pleasure works: The new science of why we like what we like*. New York: Norton.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3–5.
- Dar-Nimrod, I., & Heine, S. J. (2011). Genetic essentialism: On the deceptive determinism of DNA. *Psychological Bulletin*, 137, 800–818.
- Gaertner, L., Iuzzini, J., & O'Mara, E. M. (2008). When rejection by one fosters aggression against many: Multiple-victim aggression as a consequence of social rejection and perceived groupness. *Journal of Experimental Social Psychology*, 44, 958–970.
- Hamilton, D. L., Sherman, S. J., & Rodgers, J. S. (2004). Perceiving the groupness of groups: Entitativity, homogeneity, essentialism, and stereotypes. In V. Yzerbyt, C. M. Judd, & O. Corneille (Eds.), *The psychology of group perception: Perceived variability, entitativity, and essentialism* (pp. 39–60). Philadelphia: Psychology.
- Haslam, N., & Whelan, J. (2008). Human natures: Psychological essentialism in thinking about differences between people. *Social and Personality Psychology Compass*, 2, 1297–1312.
- Hirschfeld, L. A., & Gelman, S. A. (1997). What young children think about the relation between language variation and social difference. *Cognitive Development*, 12, 213–238.
- Hsee, C. K., & Rottenstreich, Y. (2004). Music, pandas, and muggers: On the affective psychology of value. *Journal of Experimental Psychology: General*, 133, 23–30.
- Keil, F. (1989). *Concepts, kinds, and cognitive development*. Cambridge, MA: MIT Press.
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology*, 88, 686–702.
- Lewicki, P. (1986). *Nonconscious social information processing*. New York: Academic Press.
- Loof, S. (2003, August 29th). *Center to probe Nazi ties of Schwarzenegger's dad*. Jweekly.com. <<http://www.jweekly.com/article/full/20429/center-to-probe-nazi-ties-of-schwarzenegger-s-dad/>>.
- Medin, D. L., & Ortony, A. (1989). Psychological essentialism. In S. Vosniadou & A. Ortony (Eds.), *Similarity and analogical reasoning*. New York: Cambridge University Press.
- Mortimer, M., & Toader, A. (2005, September 23). *Blood feuds blight Albanian lives*. BBC News. <<http://news.bbc.co.uk/2/hi/europe/4273020.stm>>.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making*, 5, 411–419.
- Peerenboom, R. P. (1993). *Law and morality in ancient China*. Albany, NY: State University of New York Press.
- Plaks, J. E., Levy, S. R., Dweck, C. S., & Stroessner, S. J. (2004). In the eye of the beholder: Lay theories and the perception of group entitativity, variability, and essence. In V. Yzerbyt, C. M. Judd, & O. Corneille (Eds.), *The psychology of group perception: Perceived variability, entitativity, and essentialism* (pp. 127–146). New York, NY: Psychology Press.
- Ranganath, K. A., & Nosek, B. A. (2008). Implicit attitude generalization occurs immediately, explicit attitude generalization takes time. *Psychological Science*, 19, 249–254.
- Yzerbyt, V., Corneille, O., & Estrada, C. (2001). The interplay of subjective essentialism and entitativity in the formation of stereotypes. *Personality and Social Psychology Review*, 5, 141–155.