

Clean, Proper and Tidy Are More Than the Absence of Dirty, Disgusting and Wrong

Simone Schnall

Department of Social and Developmental Psychology, University of Cambridge, UK

Abstract

The desire to feel clean and pure might not merely be the absence of contamination and resulting feelings of disgust. Instead, it might have a social function because early in evolution social grooming not only involved improved personal hygiene and cleanliness, but also increased group cohesion. Thus, knowing that one's body is clean, proper and tidy might have social implications that go beyond morality.

Keywords

clean, disgust, morality, social grooming

Being a good person appears to involve more than treating others fairly, and ensuring that no one is harmed. Whereas early work on morality primarily focused on concerns of harm and fairness (e.g., Turiel, 1983), more recent considerations propose five (or possibly more) moral concerns (Graham, Haidt, & Nosek, 2009; Haidt & Joseph, 2007). In addition to ensuring fairness and preventing harm to others, individuals attempt to protect the rights of their own ingroup, and appreciate and maintain hierarchical order within society. Further, individuals try to protect the purity of their body and spirit by avoiding physical contamination. Among the five foundations that have been identified so far, purity stands out as the only one that does not appear to have a clearly social function. Purity and cleanliness have been conceptualized as the absence of all things dirty, disgusting, and potentially morally wrong. However, I will argue that rather than constituting the mere absence of disgust, wanting to be clean represents a fundamental human desire. Based on comparative evidence from primates and other nonhuman animals, an evolved reason for this might be that the desire to be clean facilitates affiliating with others in the process of shared-grooming activities. Although in humans much of the need for such social grooming has been replaced by the invention of language (Dunbar, 1993), the desire to be clean, proper and tidy remains.

Whereas treating others fairly, being loyal to one's group, respecting authority et cetera, all can be considered adaptive in

promoting group cohesion, no such social function is apparent for the purity dimension. In contrast, purity is only concerned with the self (Haidt & Joseph, 2007) and constitutes a moral intuition that evolved from the general need to physically safeguard one's own body from contaminants and pathogens that are spread by physical contact (Schaller & Duncan, 2007). Disgust initially evolved as an emotion to protect the body from physical harm, but was extended to social and moral domains, such that immoral deeds are also considered disgusting (Rozin, Haidt, & McCauley, 2008). Indeed, the boundaries between physical and moral disgust can be blurred, and people sometimes misinterpret one for the other: when induced to feel physical disgust, people often make more severe moral judgments (Schnall, Haidt, Clore, & Jordan, 2008; Wheatley & Haidt, 2005), and, for example, people who are prone to experiencing disgust are more likely to condemn the concept of homosexuality (Inbar, Pizarro, Knobe, & Bloom, 2009).

On the flip side of disgust, support for the moral intuition of purity has come from recent findings involving physical purity and its relationship with morality. For example, after being reminded of immoral deeds they had committed in the past, participants showed a greater desire to physically clean themselves (Zhong & Liljenquist, 2006). Such cleansing desires are modality specific, such that after having orally said something bad people want to use mouthwash, but after having manually

typed something bad people want to use a hand sanitizer (Lee & Schwarz, 2010a). Further, being primed with cleanliness concepts or engaging in hand washing can change people's moral judgments, and make moral judgments less severe when cleanliness is attributed to the transgressions under considerations (Schnall, Benton, & Harvey, 2008), but more severe when the cleanliness is attributed to the self (Zhong, Strejcek, & Sivanathan, 2010). The sense that being clean is fundamentally good might explain why a clean smell in a room, such as a whiff of Windex, can increase prosocial behavior (Liljenquist, Zhong, & Galinsky, 2010). Further, recent findings suggest that the effects of cleansing behavior go beyond the moral domain, and, for example, reduce the regret that would otherwise accompany difficult decisions (Lee & Schwarz, 2010b).

All this evidence suggests that the sense of being clean, proper and tidy constitutes a critical desire, or even a human need. Might cleanliness be more than the simple absence of contamination? If so, what function beyond the avoidance of disgusting substances might the desire for cleanliness serve? One possibility is that human and nonhuman animals alike have a desire to keep clean and tidy because this desire makes possible a critical process within groups: social grooming. Picking out insects, leaves or other impurities from another individual's skin or fur is a very common activity among primates and other animals (Dunbar, 1996). Primates spend up to 20% of their time grooming others (Dunbar, 1993), and this activity is considered fundamental for group cohesion. It is curious that animals would spend so much time in an activity that requires getting very close to another individual and thus involves being vulnerable. In contrast to disgust, which is an avoidance-based emotion, the desire to feel clean in its most basic form therefore involves approach and getting close to other conspecifics.

Importantly, grooming not only improves personal hygiene but serves as an important social glue among group members. Grooming is a dyadic activity that occurs selectively among some members of a group who form a primary network of friendships, and who are then more likely to help each other. In fact, time spent helping others in the friendship network is a direct function of time spent grooming (Seyfarth & Cheney, 1984), and males who are in grooming relationships are less likely to compete over access to females (Dunbar, 1983). Grooming relationships appear to be inherently pleasant, as indicated by increased brain opioid levels in primates after grooming sessions (Keverne, Martensz, & Tuite, 1989).

Of course, among present-day humans, social-grooming processes are not exactly common. Dunbar (1993, 1996) notes that because of increasing group sizes it became increasingly impractical for human beings to service their social relationships by grooming, but instead, more efficient grooming strategies had to be developed. Based on this logic, Dunbar argues that language grew out of the need to groom, but whereas grooming was confined to two individuals, language had the capacity to enable bonding processes among several individuals. And yet, as suggested by the evidence cited above, although the

need to engage in physical grooming in social contexts vanished, the need to have a clean and proper body appears inherently desirable.

Some preliminary evidence suggests that people approve of others' cleansing-related activities. We recently demonstrated that when considering morally positive and negative behaviors people spontaneously show facial activity that is specific to certain moral domains (Cannon, Schnall, & White, in press). When considering transgressions within the purity domain, activity was greatest for the levator labii muscle involved in a disgust expression, with additional increased activity for the corrugator supercilii muscle involved in frowning. Unexpectedly, corrugator activity was significantly reduced when participants considered positive statements within the purity domain (e.g., somebody brushed their teeth after every meal), thus suggesting a reduction in negative affect. Further studies will need to explore the extent to which cleanliness is considered praiseworthy, and whether this might be especially important within social contexts.

In conclusion, the need for cleanliness might not so much reflect the need for godliness and the desire to reach out for the higher spiritual beings above us, but instead, for getting closer to those next to us in the process of sharing our own vulnerabilities.

References

- Cannon, P. R., Schnall, S., & White, M. (in press). Transgressions and expressions: Affective facial muscle activity predicts moral judgments. *Social Psychological and Personality Science*.
- Dunbar, R. (1983). Structure of gelada baboon reproductive units: III. The male's relationship with his females. *Animal Behavior*, *31*, 556–564.
- Dunbar, R. (1993). Coevolution of neocortical size, group size and language in humans. *Behavioral and Brain Sciences*, *16*, 681–735.
- Dunbar, R. (1996). *Grooming, gossip and the evolution of language*. London, UK: Faber & Faber.
- Graham, J., Haidt, J., & Nosek, B. (2009). Liberals and conservatives use different sets of moral foundations. *Journal of Personality and Social Psychology*, *96*, 1029–1046.
- Haidt, J., & Joseph, C. (2007). The moral mind: How 5 sets of innate moral intuitions guide the development of many culture-specific virtues, and perhaps even modules. In P. Carruthers, S. Laurence & S. Stich (Eds.), *The innate mind* (Vol. 3, pp. 367–391). New York, NY: Oxford.
- Inbar, Y., Pizarro, D., Knobe, J., & Bloom, P. (2009). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion*, *9*, 435–439.
- Keverne, E. B., Martensz, N. D., & Tuite, B. (1989). Beta-endorphin concentrations in cerebrospinal fluid of monkeys are influenced by grooming relationships. *Psychoneuroendocrinology*, *14*, 155–161.
- Lee, S. W. S., & Schwarz, N. (2010a). Dirty hands and dirty mouths: Embodiment of the moral–purity metaphor is specific to the motor modality involved in moral transgression. *Psychological Science*, *21*, 1423–1425.
- Lee, S. W. S., & Schwarz, N. (2010b). Washing away postdecisional dissonance. *Science*, *328*, 709.
- Liljenquist, K., Zhong, C. B., & Galinsky, A. D. (2010). The smell of virtue: Clean scents promote reciprocity and charity. *Psychological Science*, *21*, 381–383.
- Rozin, P., Haidt, J., & McCauley, C. R. (2008). Disgust. In M. Lewis, J. M. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of emotions* (3rd ed., pp. 757–776). New York, NY: Guilford Press.

- Schaller, M., & Duncan, L. A. (2007). The behavioral immune system: Its evolution and social psychological implications. In J. P. Forgas, M. G. Haselton & W. von Hippel (Eds.), *Evolution and the social mind: Evolutionary psychology and social cognition* (pp. 293–307). New York, NY: Psychology Press.
- Schnall, S., Benton, J., & Harvey, S. (2008). With a clean conscience: Cleanliness reduces the severity of moral judgments. *Psychological Science*, *19*, 1219–1222.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin*, *34*, 1096–1109.
- Seyfarth, R. M., & Cheney, D. L. (1984). Grooming alliances and reciprocal altruism in vervet monkeys. *Nature*, *308*, 341–343.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, UK: Cambridge University Press.
- Wheatley, T., & Haidt, J. (2005). Hypnotic disgust makes moral judgments more severe. *Psychological Science*, *16*, 780–784.
- Zhong, C. B., & Liljenquist, K. (2006). Washing away your sins: Threatened morality and physical cleansing. *Science*, *313*, 1451–1452.
- Zhong, C. B., Strejcek, B., & Sivanathan, N. (2010). A clean self can render harsh moral judgment. *Journal of Experimental Social Psychology*, *46*, 859–862.