

Why bother with what McGinn thinks about science in the first place? There are better ways for researchers to spend their time than to complain about a philosopher for showing insensitivity to empirical data, no matter how annoying it might be. But the problem is not limited to *The Meaning of Disgust*, or to McGinn. Nor is it limited to philosophers who write about science. There are plenty of examples of psychologists who are guilty of a similar infraction: addressing a traditional philosophical question with empirical methods that are ill-suited to the task, ignoring dozens, if not hundreds of papers in the philosophical literature on the topic, and making broad, erroneous claims about the contribution of empirical data to the philosophical question at hand.

The value in the exchange between Strohminger (2014) and McGinn (2011), I believe, is that it provides a good opportunity to discuss the nature of the relationship between philosophy and psychology, and to highlight some of the deep problems with engaging in interdisciplinary work. More than ever, psychologists have become actively interested and engaged in philosophical topics (such as free will, consciousness, identity, and moral responsibility). Likewise, philosophers have started to borrow the tools and methods of the behavioral sciences to investigate philosophical intuitions, and a growing number of them regularly design studies and collect experimental data. This cross-pollination of ideas can be a very good thing, and it has yielded a great deal of interesting work.

But in practice, things can get messy and embarrassing. Philosophers interested in empirical questions about the mind, but who have not themselves been trained in experimental methods or statistical analyses, are more likely to ignore or misinterpret data, to selectively report results that support their argument, and when collecting data themselves to make basic errors in experimental design, implementation, and analysis. The philosophical community may not notice this sort of

sloppiness nearly as quickly as they would notice errors in conceptual analysis. Likewise, psychologists who choose to investigate philosophical topics using empirical methods seem more likely to make sloppy, basic conceptual errors, such as failing to identify relevant distinctions among related concepts. Many psychologists do not even understand that a large chunk of questions in philosophy are not empirical ones to begin with, and that even the cleverest of methodologies or unlimited statistical power cannot address them properly.

The immediate upshot of an increase in interdisciplinarity is that there seem to be more cases of bad psychology being done by philosophers and bad philosophy being done by psychologists. The only solution, I think, is to adopt intellectual humility and actively encourage it in our colleagues and students. The people whom I believe are doing the best work at the intersection of philosophy and psychology are those who have taken steps that required them to swallow their pride and admit to their ignorance about matters beyond their own field, such as getting formal outside training, actively seeking feedback and criticism from colleagues in the other discipline, and forming collaborations with researchers who know more than they do about the topic. Adopting these sorts of strategies would, I believe, put pressure on scholars to be a bit more responsible in their attempts at interdisciplinary work.

## References

- McGinn, C. (2011). *The meaning of disgust*. Oxford, UK: Oxford University Press.
- McGinn, C. (2012, March 4). Philosophy by another name. *The New York Times*. Retrieved from <http://opinionator.blogs.nytimes.com/2012/03/04/philosophy-by-another-name/>
- Strohminger, N. (2014). *The meaning of disgust: A refutation*. *Emotion Review*, 6, 214–216.

## Comment: Scholarly Disgust and Related Mysteries

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### Abstract

Strohminger (2014) is revolted by McGinn's (2011) book, *The Meaning of Disgust*. We argue that her reaction of repugnance highlights one of the greatest mysteries in the psychology of disgust: this emotion is at times elicited by abstract ideological concerns rather than physical threats of infection or

contamination. Here we describe the theoretical challenge of accounting for nonpathogenic disgust elicitors, which include spiritual defilement, violations of the "natural order," and, apparently, McGinn's latest publication.

### Keywords

disgust, emotion, morality

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Strohminger (2014) is revolted by McGinn's (2011) book, *The Meaning of Disgust*. Her commentary leads us to believe that she read his book with a wrinkled nose and flashes of nausea. But McGinn's book posed no threat of infection, and flipping through its pages presumably left no foul odors in the air.

Strohminger's (2014) commentary is unforgiving, especially in its attack of McGinn's supposedly "mysterian" attitude toward disgust. To counter his view that disgust is a befuddling phenomenon, she points to the orthodox belief that disgust evolved as a mechanism for pathogen avoidance. This idea has been embraced by evolutionary theorists (e.g., Curtis & Biran, 2001; Oaten, Stevenson, & Case, 2009; Rozin, Haidt, & McCauley, 2008; Schaller, 2011) and is generally unquestioned. Yet, it is not clear to us that disgust has such a simple adaptive explanation (Rottman, in press).

Disgust, as McGinn (2011) notes, is a complex phenomenon associated with numerous elicitors that vary widely across time and space. People around the world experience disgust in response not only to pathogenic substances like feces and rotting flesh but also to norm violations and sacrilegious actions that are unrelated to infectious disease. Although some researchers have argued that disgusting moral transgressions tend to be indicative of potential bodily contamination (Inbar & Pizarro, in press), others posit a much broader array of sociomoral violations that are generally unrelated to pathogens or parasites (Chapman & Anderson, 2013). For example, disgust is evoked by unfair actions as well as ideational or spiritual—rather than bodily—impurities (e.g., Cannon, Schnall, & White, 2011). In our own research, we have found that people judge suicide to be immoral and disgusting to the extent that they believe suicide taints the purity of the soul (Rottman, Kelemen, & Young, 2014). Also on the list of nonbodily disgust elicitors are hypocrisy, various forms of social deviance, environmental degradation, the sacred texts of other religions, and being French-Canadian, to name a few (e.g., Haidt, Rozin, McCauley, & Imada, 1997; Hodson & Costello, 2007; Ritter & Preston, 2011).

It is difficult to imagine how such nonbodily disgust elicitors can be accommodated by an adaptive account narrowly focused on the avoidance of pathogens; disgust, it seems, would be better conceptualized as a response not only to bodily violations (Bloom, 2004; Russell & Giner-Sorolla, 2013) but also to tarnished souls. On several accounts, it is proposed that disgust has been exapted or culturally extended from its initial manifestation as a food rejection response (Kelly, 2011; Rozin, Haidt, & Fincher, 2009; Rozin et al., 2008). However, there are currently no strong reasons—either a priori or empirical—to assume this historical trajectory for disgust or even to accept that disgust is a unitary adaptation rather than comprising multiple distinct functional systems (Tybur, Lieberman, Kurzban, & DeScioli,

2013). Scholars must account for the apparent human uniqueness of this emotion and rule out the possibility that it evolved as a mechanism for social regulation independent of disease avoidance.

Ultimately, we share McGinn's caricatured puzzlement and agree that a coherent understanding of disgust remains enigmatic. However, we are excited about the upsurge of research that is starting to shine a light on the dank underbelly of disgust. It is likely that this emotion will not remain mysterious for long.

## References

- Bloom, P. (2004). *Descartes' baby*. New York, NY: Basic Books.
- Cannon, P. R., Schnall, S., & White, M. (2011). Transgressions and expressions: Affective facial muscle activity predicts moral judgments. *Social Psychological and Personality Science*, 2, 325–331.
- Chapman, H. A., & Anderson, A. K. (2013). Things rank and gross in nature: A review and synthesis of moral disgust. *Psychological Bulletin*, 139, 300–327.
- Curtis, V., & Biran, A. (2001). Dirt, disgust, and disease: Is hygiene in our genes? *Perspectives in Biology and Medicine*, 44, 17–31.
- Haidt, J., Rozin, P., McCauley, C., & Imada, S. (1997). Body, psyche, and culture: The relationship between disgust and morality. *Psychology and Developing Societies*, 9, 107–131.
- Hodson, G., & Costello, K. (2007). Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science*, 18, 691–698.
- Inbar, Y., & Pizarro, D. A. (in press). Pollution and purity in moral and political judgment. In J. C. Wright & H. Sarkissian (Eds.), *Advances in experimental moral psychology*. New York, NY: Continuum Press.
- Kelly, D. (2011). *Yuck!* Cambridge, MA: MIT Press.
- McGinn, C. (2011). *The meaning of disgust*. New York, NY: Oxford University Press.
- Oaten, M., Stevenson, R. J., & Case, T. I. (2009). Disgust as a disease-avoidance mechanism. *Psychological Bulletin*, 135, 303–321.
- Ritter, R. S., & Preston, J. L. (2011). Gross gods and icky atheism. *Journal of Experimental Social Psychology*, 47, 1225–1230.
- Rottman, J. (in press). Evolution, development, and the emergence of disgust. *Evolutionary Psychology*, 12.
- Rottman, J., Kelemen, D., & Young, L. (2014). Tainting the soul: Purity concerns predict moral judgments of suicide. *Cognition*, 130, 217–226.
- Rozin, P., Haidt, J., & Fincher, K. (2009). From oral to moral. *Science*, 323, 1179–1180.
- Rozin, P., Haidt, J., & McCauley, C. R. (2008). Disgust. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (pp. 757–776). New York, NY: Guilford Press.
- Russell, P. S., & Giner-Sorolla, R. (2013). Bodily moral disgust: What it is, how it is different from anger, and why it is an unreasoned emotion. *Psychological Bulletin*, 139, 328–351.
- Schaller, M. (2011). The behavioral immune system and the psychology of human sociality. *Philosophical Transactions of the Royal Society B*, 366, 3418–3426.
- Strohminger, N. (2014). *The meaning of disgust: A refutation*. *Emotion Review*, 6, 214–216.
- Tybur, J. M., Lieberman, D., Kurzban, R., & DeScioli, P. (2013). Disgust: Evolved function and structure. *Psychological Review*, 120, 65–84.