

A Psychological Critique of the Public Health Response to Chicken Pox Parties

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Medical institutions hail vaccines as a truly comprehensive safeguard against infectious disease. The American Academy of Pediatrics (AAP) endorses childhood vaccination schedules as the only appropriate path to immunity while the Center for Disease Control and Prevention (CDC) even gives the nod to mandating school-entry vaccines. In perhaps the most egregious display of this vaccine-centered mentality, pediatric practices are—in growing numbers—refusing to treat patients who forego recommended immunizations (Leib et al. 2011). But despite the prevailing medical opinion, concerns persist about the safety of these immunogenic tools. Pointing to anecdotal links between vaccines and autism *inter alia*, many parents are now looking for routes to infect their youngsters with wild virus.

In regards to varicella, the virus responsible for chicken pox, one route that has gained increasing popularity is that of pox parties, or get-togethers that allow children to catch the contagion through play with infected individuals. As recently reported in the health column of the *New York Times*, the advent of social media in particular has enabled parents to overcome the vaccine-driven decline of varicella infection by helping them connect with geographically distant families (O'Connor 2011). The mainstream scientific community has in turn responded not only by reasserting the safety of varicella vaccination but also by highlighting the hazards of pox parties. Drawing on Keith Stanovich's *How to Think Straight about Psychology* (2009), health professionals have sought to deconstruct concern about vaccines by arguing for their illusory correlation with autism—given that the injections are administered to children at the same

age when the disorder is typically diagnosed. Furthermore, Dr. Walter Orenstein of the AAP warns in the *Times* article that naturally contracting the virus can lead to serious complications such as pneumonia and encephalitis (O'Connor 2011). And colleague Dr. Sarah Long voices even stronger disapproval, concluding that pox parties “just make no sense whatsoever” (Shute 2011).

But before the introduction of the varicella vaccine, pox parties were a common occurrence. Society as a whole understood that the presentation of chicken pox in children was much less severe than in adults (Rotem 1961), and therefore childhood exposure to the virus was strongly recommended (Clayman et al. 1989). If exposure to the virus was not achieved through the school setting, pox parties were in fact viewed as a viable alternative (Hambleton and Arvin 2005). Yet in the years following the release of the varicella vaccine, society has—in the words of Harvard psychologist Steven Pinker—flipped the “moralization switch.” In his *New York Times* piece “The Moral Instinct,” Pinker (2008) notes, “Dozens of things of past generations treated as practical matters are now ethical battlegrounds, including disposable diapers, I.Q. tests, poultry farms, Barbie dolls, and research on breast cancer.” There is little doubt that pox parties have similarly found their way onto this list.

Indeed, representatives of health organizations such as the AAP and CDC are not the only ones to scorn the pox partygoers. People without medical backgrounds have taken to the frontlines, too. A quick scroll through the discussion boards and blogs of related news reveals accusations of pox parties being “dangerous and immoral” (Matharu 2011) and of the participating parents being “morally bankrupt” (Pinkamena 2011). Others—in the *Times* readers' comments section—rally to punish the parents, calling for “a criminal liability for these halfwits” (Hill 2011) and declaring that they “are abusers and ought to pay the price” (Keith 2011). As one of the hallmarks of moralization is precisely a desire

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to reprimand the behavior in question (Pinker 2008), there is good reason to regard the pox party mania as a “moral panic” (Haber 2009).

But is there equally good reason to regard the pox parties as immoral? Doctors and laypeople alike who affirm this question are quick to marshal the evidence in favor of varicella vaccination. As previously mentioned, chicken pox infection sometimes brings about serious pathology such as pneumonia and encephalitis, which can be largely avoided through vaccination (Liu and Urion 1992). Similarly, vaccination can significantly reduce—in varicella-infected individuals—the likelihood as well as severity of herpes zoster, a disease commonly known as shingles, which results from the reactivation of latent varicella virus (Hammerschlag et al. 1989; Seward and Orenstein 2006). Researchers also note that, over the past two decades, falling hospitalization and mortality rates for chicken pox have coincided with rising vaccine administrations (Davis et al. 2004; Nguyen et al. 2005). And most importantly, the vaccine itself has been shown to cause no major side effects and be about 85 % effective (Hambleton and Gershon 2005). Together, these findings do seem to ground the moral imperative that parents should vaccinate rather than infect their children.

A review of other literature on chicken pox vaccination, however, points to a much different conclusion. Although complications from chicken pox do arise, they are infrequent and contribute to fewer than one in a million deaths per year—with only twenty percent of those being of children (Rawson et al. 2001). In addition, the decreased likelihood of shingles in vaccinated individuals is unfortunately paired with an increased likelihood of shingles in the population as a whole. The explanation is that re-exposure to infected individuals is known to boost varicella immunity and thus suppress the reactivation of latent virus (Arvin 1996a; Thomas et al. 2002). With the reservoir of infection (and boosters) now dwindling, researchers predict that a shingles epidemic will soon hit more than fifty percent of adults aged forty and over (Brisson et al. 2002). As shingles contributes approximately three to five times more than does chicken pox to the morbidity and mortality of varicella, mass vaccination against the virus may certainly be cause for concern (Goldman 2006). And finally, the effectiveness of the vaccine is widely disputed. One study of a varicella outbreak at a day-care center demonstrated the vaccine to be only 44% effective (Galil et al. 2002). A second study of a similar outbreak found a six-fold decrease in effectiveness for vaccinations administered more (as opposed to less) than 5 years prior (Tugwell et al. 2004). And Goldman (2006) suspects that all effectiveness figures are significantly inflated due to the re-exposure boosting effects previously mentioned. Clearly, then, the chicken pox science proves just as controversial as does the chicken pox partying.

But if appeals to reason cannot explain why people protest the pox parties, what can? The counterpart to reason is perhaps emotion, and psychologists for a long time have posited a

“dual-process” model, in which impulsive, emotional judgments occur first and corrective, rational evaluations follow (Eagleman 2011). Jonathan Haidt at the University of Virginia has recently elaborated upon this model by showing that although issues of *moral* import do elicit emotional judgments and rational evaluations, the latter do not serve to correct the former. In his highly publicized experiment, Haidt (2001) had participants read vignettes about moral violations such as a brother and sister having consensual sex, a woman cleaning a toilet with her nation’s flag, and a family eating its pet dog. Each vignette was carefully crafted such that the behavior in question was harmless: the brother and sister used protection, the woman cleaned the toilet in private, and the pet dog was already dead. When asked about the acceptability of the behaviors, participants were quick to voice their disapproval. But when prompted for a rationale, participants grew flustered, failing to find in the vignettes any immediate dangers that would support their response. Haidt (2001) ultimately concluded that rational evaluations do not inform our moral attitudes; rather these evaluations serve only as post-hoc justifications for the judgments already put forth by our emotions. Returning to the present discussion, we can infer that those who view pox parties as morally objectionable may be guided not by a careful evaluation of the medical evidence but rather by a quick judgment from their emotional system. Their rational system in turn may act as a justification mechanism and thereby summon only the particular set of evidence that bolsters their view.

Assuming that the criticism leveled at the pox party planners stems from somewhere in the emotional—rather than the rational—system, we may inquire about which emotion in particular is to blame. Earlier work by Rozin et al. (1999) shows that across cultures, moral violations consistently elicit one of three emotions: contempt, anger, and disgust. More importantly, the specific type of moral violation can predict which “other-critical” emotion results. In what the researchers name the CAD triad hypothesis, they enumerate three pairings: violating an ethics of community causes contempt, violating an ethics of autonomy prompts anger, and violating an ethics of divinity induces disgust. To identify which violation-emotion pairing applies to the case of pox parties—in which parents act so as to infect their children with a virus—each violation type will be considered in turn.

First, Rozin et al. (1999) note that violating an ethics of community involves an action in which “a person fails to carry out his or her duties within a community” (p. 575). The foremost duty of parents is to care for their children, and there is much evidence that parents going to pox parties are doing just that. Given the recent paucity of chicken pox infections, parents who seek out natural immunity are devoting considerable time and effort to the pox partying endeavor. The *New York Post Magazine* ran a story of a mother who drove 3 hours, for example, to bring her children to a pox party (Torgovnick 2009). Other parents, as

reported in the *Times* piece, travel to multiple parties to guarantee infection (O'Connor 2011). These parents are also tasked with caring for their children post-infection and must take additional time off from work to do so (Ferson et al. 1998). A secondary responsibility for these parents may be to care for those in the community, and clearly, they have not shirked this role either. As noted above, research shows that contact with infected individuals not only boosts immunity to chicken pox but also suppresses reactivation of latent virus (Arvin 1996a; Thomas et al. 2002). By having their children become infected, parents are in fact improving the health outcomes of those around them. It is thus unlikely that these parents have violated any ethics of community.

Second, Rozin et al. (1999) comment that violating an ethics of autonomy involves an action that “infringes upon [one’s] rights or freedoms as an individual” (p. 575). In discussing parents’ decisions to eschew vaccination and attend pox parties, the rights under consideration are, of course, the health rights of the children. Health care legislation, however, specifically authorizes parents to make decisions on behalf of their children until they reach the age of majority. And although some states have recently passed laws granting minors increased say in their medical care, these laws only relate to issues of sexual activity, substance abuse, and mental health (Boonstra and Nash 2000). A second matter to investigate is whether the children’s freedoms are in jeopardy; for example, are parents dragging their children to pox parties against their will? The fact that children seem to enjoy the festivities surrounding the task at hand suggests not. The *New York Post Magazine* story documents that the children at one pox party “built a fort, watched movies, and played Wii games” (Torgovnick 2009). Another news outlet even reports that, for the children, both the parties and the subsequent infection “can be fun” (Holmes 2009). It is thus similarly unlikely that the parents of these children have violated any ethics of autonomy.

Third, Rozin et al. (1999) delineate that violating an ethics of divinity involves an action through which “a person disrespects the sacredness of God, or causes impurity or degradation to himself/herself, or to others” (p. 576). Parents who take their kids to pox parties, however, do not seem to commit the first infraction—disgracing a higher power. Quite the contrary, the actions of these parents fall perfectly in line with those of religious enthusiasts. Specifically, with beliefs that humans “exist in spiritual perfection” and therefore do not require medical preventatives, these enthusiasts have long sought to avoid vaccinations through religious exemptions (Knight 2004). But the second infraction—causing impurity or degradation—may well describe the actions of the parents. The varicella virus is a known contagion, and causing their children to contract it is akin to devoiding them of their purity; as historian Nicholas Terpstra at the University of Toronto (2005) put it, “purity [is] the counterpoint to contagion” (p. 131). Moreover, there is much consensus that the varicella

virus, in the process of self-proliferation, acts so as to *degrade* the biological machinery of its hosts (Arvin 1996b). An ethics of divinity is thus the likely candidate to have been violated.

The CAD triad hypothesis, though, holds that violations of divinity beget feelings of disgust. Is there in fact any trace of this emotional consequence? One online forum member, speaking of the pox parties, asserts that it “is disgusting to think this happens” (Nicola 2011). A member of a second forum maintains that it is “the idea of a parent intentionally trying to make their [sic] child ill that disgusts [him]” (Pocketnico 2011). But in his book *Descartes’ Baby*, Yale psychologist Paul Bloom (2004) argues that the word *disgust* is often used to denote a metaphorical expression rather than a visceral conviction. To confirm whether the disgust that populates internet forums can actually be viewed as the latter, the object of disgust (pox parties) must obey the “law of contagion,” or transfer its disgusting properties to other things it touches (Bloom 2004). And, indeed, we do find such transmission. Actress Amanda Peet has referred to parents who attend pox parties as “parasites” (Torgovnick 2009)—organisms which are themselves contagions—and *Gawker News* recently headlined that Facebook users’ 4.74-degree of separation means that there are “just three people separating you from someone who participated in one of those disgusting chicken pox parties” (Chen 2011), thereby implying that the pox party contamination can spread.

Protests of pox parties, as argued, are framed with rational evaluations—and that framing is overseen by the protestors’ emotional machinery, particularly their feelings of disgust. Although we do not wish to rely simply on one-sided evaluations to determine whether pox parties are immoral, is it possible that relying on disgust itself is a good metric for doing so? Leon Kass, former chair of the President’s Council on Bioethics, seems to think so. In an essay critical of human cloning, Kass (1997) argues that disgust is an “expression of deep wisdom” that surfaces when “we intuit and we feel, immediately and without argument, the violation of things that we rightfully hold dear.” In this way, Kass believes that only by tapping into our disgust can we preserve “the central core of our humanity.” But many scholars have rightfully taken issue with these claims, showing that—in the moral domain—disgust often leads us astray. Bloom (2004), for example, reminds us that interracial sex was once viewed as disgusting. Pinker (2008) adds to the list more recent examples such as Whites sharing fountains with Blacks, Aryans marrying Jews, and males having sex with males. In an extended critique, University of Chicago philosopher Martha Nussbaum (2004) not only echoes similar examples, but also points out exactly why disgust, in particular, should not inform our morals—and for our purposes, our morals about pox parties.

Her argument is two-fold. To begin, Nussbaum (2004) holds that disgust does not correlate well with actual danger. Indeed, people refuse to eat food out of a squeaky-clean

bedpan or drink milk stirred with a brand-new fly swatter. In terms of our discussion on pox parties, an insensitivity to risk is also clear. Recall that deaths in the child population attributable to chicken pox is estimated to be less than one in a million (Rawson et al. 2001) whereas varicella vaccination is poised to bring about shingles in more than half of our elders (Brisson et al. 2002). Nussbaum names as a second problem with disgust its governance by two “magical” laws. We have previously touched upon the law of contagion to demonstrate why mothers who attend pox parties are deemed parasitic. But other consequences of transference—such as social distancing and rejection—may soon come to affect not just parents but their children as well (Olatunji and Sawchuk 2005). Disgust also abides by the law of similarity, explaining, for instance, why people are unable to stomach feces-shaped fudge. Applied to our discussion, this law may be similarly problematic—by inappropriately causing all virus gatherings to suffer the same fate as pox parties, regardless of their medical merit. For example, although swine flu parties were organized under the well-supported rationale that immunity from a mild strain would guard against virulent attacks in the future, many doctors rebuked them without supporting evidence (McNeil 2009).

But the biggest problem with feeling disgust is that it hinders not our ability to detect the real danger of an object—or even the danger of objects that touch it or resemble it—but rather our ability to use the object towards an eventual good. In other words, because disgust is marked by a tendency to avoid and expel (Rozin et al. 1993), it leads to a wholesale rejection of, rather than a constructive engagement with, the object in view. In an elegant summary of this idea, Nussbaum (2004) writes that the content of disgust is “antisocial,” providing little incentive “to right the wrong” and much incentive “to run away” (p. 105). Linking this insight to pox parties, we can see that disgust has notably undermined a comprehensive approach to varicella immunity.

Indeed, barring our disgust and actively incorporating pox party mania into medical reasoning now holds in store great improvements for public health. In particular, medical professionals can begin a discussion on ways to increase the efficacy and safety of pox parties. The *New York Post Magazine* article illustrates that some parents try to facilitate infection by having their children swap clothes and share lollipops with the guest of honor. But such behavior is not only ineffective—since the virus must be inhaled—but also dangerous, as the shared items can transmit bacteria that cause group A streptococcal and staphylococcal infections (O’Connor 2011). Even if doctors rightfully decide not to endorse these parties for all patients, working to educate the community about pox party etiquette, so to speak, will provide a safe environment for those who continue to seek out natural immunity, whether for scientific or religious reasons. In fact, a similar logic underpins the needle-exchange programs and prostitution

check-ups that have been implemented in many states and countries for well over a decade.

In addition to “righting the wrong” of pox parties, the medical community can begin integrating them into a comprehensive public health strategy. First, many parents who refuse vaccination do not make active efforts to infect their children with the virus (Glanz et al. 2010), thereby putting them at risk for more deadly infections in adulthood. Supporting pox parties as a medically viable alternative to vaccination may thus be a good way to increase varicella immunity in the child population. Second, given the balancing act between varicella vaccination and shingles incidence, a sophisticated policy that combines vaccination with infection may now be considered. Edmunds and Brisson (2002), for example, suggest one such policy that would target for vaccination only immunocompromised children and their contacts.

Pinker (2008) advises, “Our habit of moralizing problems, merging them with intuitions of purity and contamination, and resting content when we feel the right feelings, can get in the way of doing the right thing.” Indeed, through a critical examination of the medical literature and the psychology of disgust, we have come to understand that the moral imperative in question is not that parents should vaccinate their kids. Far from it, it is that we remove from pox parties the label of disgust and actively approach them with the scientific scrutiny that twenty-first century medicine dictates. Pox parties once were—and should continue to be—an integral part of our public health program. We must therefore embrace an open dialogue between pox partying parents and medical professionals and start advocating for the strategies that will keep us all healthy in the decades to come.

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